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## TECHNICAL NOTE 2055

### TABLES OF WING-AILERON COEFFICIENTS OF OSCILLATING AIR FORCES FOR TWO-DIMENSIONAL SUPERSONIC FLOW

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TABLES OF WING-AILERON COEFFICIENTS OF OSCILLATING  
AIR FORCES FOR TWO-DIMENSIONAL SUPERSONIC FLOW

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## SUMMARY

Wing-aileron coefficients of oscillating air forces for two-dimensional supersonic flow are tabulated for Mach numbers of  $10/9$ ,  $5/4$ ,  $10/7$ ,  $5/3$ ,  $2$ , and  $5/2$ . Various ratios of control-surface chord to airfoil chord are employed in the calculations, namely,  $0.1$ ,  $0.2$ ,  $0.3$ ,  $0.4$ ,  $0.5$ ,  $0.6$ ,  $0.7$ ,  $0.8$ , and  $0.9$  and for each combination of chord ratio and Mach number approximately 35 values of reduced frequency are utilized. For completeness, the exact and some approximate expressions for the tabulated quantities are given. The approximate expressions are useful for extending the tables to lower values of the frequency and also for interpolation between Mach numbers. The tables presented can be used directly in oscillating-air-force or flutter calculations.

## INTRODUCTION

In recent years various authors have worked on the theory of nonstationary flow past airfoils at supersonic speeds (see, for example, reference 1). This theoretical work, in particular for harmonically oscillating airfoils, is of special interest in discussions of flutter at supersonic speeds. In reference 1 various applications to flutter of wings and control surfaces have been considered, and in particular a detailed treatment and discussion of numerical results have been given for the special subcase of wing bending-torsion flutter. Various numerical tables of interest for application to this case of wing flutter are presented in reference 1 but no numerical tabulations or results are given for flutter involving control surfaces. Some graphical values for oscillating aileron coefficients have appeared but these are of a qualitative interest and do not take the place of, or fulfill the need for, tables.

The present paper is devoted to the listing of tables that can be used in calculations of flutter and in the determination of oscillating air forces of wing-aileron combinations in two-dimensional supersonic flow. Various Mach numbers and ratios of control-surface chord to airfoil chord have been employed in the calculations. Six of the Mach numbers that were employed in the tables of reference 1 have been used, namely,  $10/9$ ,  $5/4$ ,  $10/7$ ,  $5/3$ ,  $2$ , and  $5/2$ , and the range of

chord ratio is 0.1 to 0.9 in increments of 0.1. For each combination of Mach number and chord ratio approximately 35 values of reduced frequency were employed. The tables have been prepared principally by the use of a general-purpose automatic-sequence relay-type computing machine of the Bell Computing Section at the Langley Laboratory and checked by manual computations.

### SYMBOLS

t	time, seconds
$\rho$	density, slugs per cubic foot
v	velocity of main stream (supersonic), feet per second
c	velocity of sound in undisturbed medium, feet per second
M	Mach number ( $v/c$ )
x	nondimensional coordinate (abscissa) measured from wing leading edge, positive in direction of main stream
$x_0$	abscissa of axis of rotation of wing section (elastic axis), measured from wing leading edge
$x_1$	abscissa of aileron hinge, measured from wing leading edge
b	one-half chord, feet

The quantities  $x$ ,  $x_0$ , and  $x_1$  are nondimensional based on the chord  $2b$  as reference length.

$h_0$	complex amplitude of vertical displacement of axis of rotation, positive downward, feet
$\alpha_0$	complex amplitude of angular displacement about axis of rotation, positive leading edge up, radians
$\beta_0$	complex amplitude of angular displacement of aileron, measured with respect to $\alpha$ , positive trailing edge down, radians
$\omega$	angular frequency of oscillation, radians per second

$k$	reduced frequency ( $\omega b/v$ )
$\bar{\omega}$	frequency parameter $\left( \frac{2kM^2}{M^2 - 1} \right)$
$J_n(\lambda)$	Bessel function of the first kind of order $n$
$P$	aerodynamic normal force per unit span, positive downward, pounds per foot
$M_\alpha$	aerodynamic moment about the torsional axis $x = x_0$ per unit span, positive leading edge up, foot-pounds per foot
$M_\beta$	aerodynamic moment on the aileron about its hinge $x = x_1$ per unit span, positive trailing edge down, foot-pounds per foot
$L_j, M_j, N_j$ $(j = 1 \text{ to } 6)$	quantities defined by equation (1)
$r$	dummy variable employed in table VII to represent $x_1$ or $1 - x_1$

## DISCUSSION AND DESCRIPTION OF TABLES

The force and moment equations for an oscillating wing-aileron combination in two-dimensional supersonic flow as given in reference 1, equation (26), are

$$\left. \begin{aligned} P &= -4\rho b v^2 k^2 e^{i\omega t} \left[ \left( \frac{h_0}{b} \right) (L_1 + iL_2) + \alpha_0 (L_3 + iL_4) + \beta_0 (L_5 + iL_6) \right] \\ M_\alpha &= -4\rho b^2 v^2 k^2 e^{i\omega t} \left[ \left( \frac{h_0}{b} \right) (M_1 + iM_2) + \alpha_0 (M_3 + iM_4) + \beta_0 (M_5 + iM_6) \right] \\ M_\beta &= -4\rho b^2 v^2 k^2 e^{i\omega t} \left[ \left( \frac{h_0}{b} \right) (N_1 + iN_2) + \alpha_0 (N_3 + iN_4) + \beta_0 (N_5 + iN_6) \right] \end{aligned} \right\} \quad (1)$$

where  $P$  is the force,  $M_\alpha$  is the moment about the wing axis of rotation  $x = x_0$ , and  $M_\beta$  is the moment on the aileron about its hinge  $x = x_1$ . The quantities with odd subscripts are components in phase with the respective associated displacements  $h_0$ ,  $\alpha_0$ , and  $\beta_0$ , while the quantities with the even subscripts are  $90^\circ$  out of phase with these displacements. The components depend on Mach number  $M$  and reduced frequency  $k$ ; also,  $L_3$ ,  $L_4$ ,  $M_1$ ,  $M_2$ ,  $M_3$ ,  $M_4$ ,  $M_5$ ,  $M_6$ ,  $N_3$ , and  $N_4$  depend on  $x_0$ , while  $L_5$ ,  $L_6$ ,  $M_5$ ,  $M_6$ ,  $N_1$ ,  $N_2$ ,  $N_3$ ,  $N_4$ ,  $N_5$ , and  $N_6$  depend on  $x_1$ . A useful alternative frequency parameter is  $\bar{\omega}$  which is related to  $M$  and  $k$  by  $\bar{\omega} = \frac{2kM^2}{M^2 - 1}$ .

Reference 1 contains numerical tables which are directly concerned with  $L_1$ ,  $L_2$ ,  $L_3$ ,  $L_4$ ,  $M_1$ ,  $M_2$ ,  $M_3$ , and  $M_4$  while the present paper is concerned with  $L_5$ ,  $L_6$ ,  $M_5$ ,  $M_6$ ,  $N_1$ ,  $N_2$ ,  $N_3$ ,  $N_4$ ,  $N_5$ , and  $N_6$ . It was found convenient in reference 1 to tabulate certain related primed quantities which are obtained when  $x_0 = 0$  and refer to the leading edge, instead of the unprimed quantities. In the development of the tables of reference 1 certain relations between the primed and unprimed quantities were introduced. For a logical development of the wing-aileron coefficients, these relations and similar procedures are needed. The relations between the primed and unprimed quantities are

$$\left. \begin{aligned} L_3 &= L_3' - 2x_0 L_1(\bar{\omega}) \\ L_4 &= L_4' - 2x_0 L_2(\bar{\omega}) \\ M_1 &= M_1' - 2x_0 L_1(\bar{\omega}) \\ M_2 &= M_2' - 2x_0 L_2(\bar{\omega}) \\ M_3 &= M_3' - 2x_0 [(M_1' + L_3') - 2x_0 L_1(\bar{\omega})] \\ M_4 &= M_4' - 2x_0 [(M_2' + L_4') - 2x_0 L_2(\bar{\omega})] \end{aligned} \right\} \quad (2)$$

A convenient set of analytical expressions for calculating the various functions in equation (2) is as follows:

$$\left. \begin{aligned}
 L_1(\bar{\omega}) &= \frac{1}{\sqrt{M^2 - 1}} \left\{ -2f_0^R(\bar{\omega}) + \frac{1}{k} \left[ J_0\left(\frac{\bar{\omega}}{M}\right) \sin \bar{\omega} - \frac{1}{M} J_1\left(\frac{\bar{\omega}}{M}\right) \cos \bar{\omega} \right] \right\} \\
 L_2(\bar{\omega}) &= \frac{1}{\sqrt{M^2 - 1}} \left\{ -2f_0^I(\bar{\omega}) + \frac{1}{k} \left[ J_0\left(\frac{\bar{\omega}}{M}\right) \cos \bar{\omega} + \frac{1}{M} J_1\left(\frac{\bar{\omega}}{M}\right) \sin \bar{\omega} \right] \right\} \\
 L_3' &= L_1(\bar{\omega}) + \frac{1}{k} L_2(\bar{\omega}) + A_1(\bar{\omega}) \\
 L_4' &= L_2(\bar{\omega}) - \frac{1}{k} L_1(\bar{\omega}) + A_2(\bar{\omega}) \\
 M_1' &= L_1(\bar{\omega}) - A_1(\bar{\omega}) \\
 M_2' &= L_2(\bar{\omega}) - A_2(\bar{\omega}) \\
 M_3' &= \frac{4}{3} [L_1(\bar{\omega}) - B_1(\bar{\omega})] + \frac{1}{k} [L_2(\bar{\omega}) + A_2(\bar{\omega})] \\
 M_4' &= \frac{4}{3} [L_2(\bar{\omega}) - B_2(\bar{\omega})] - \frac{1}{k} [L_1(\bar{\omega}) + A_1(\bar{\omega})]
 \end{aligned} \right\} \quad (3)$$

where

$$\begin{aligned}
 A_1(\bar{\omega}) &= \frac{1}{\sqrt{M^2 - 1}} \frac{1}{M} \frac{1}{2k^2} \left[ \frac{1}{M} f_0^R(\bar{\omega}) - \frac{1}{M} J_0\left(\frac{\bar{\omega}}{M}\right) \cos \bar{\omega} - J_1\left(\frac{\bar{\omega}}{M}\right) \sin \bar{\omega} \right] \\
 A_2(\bar{\omega}) &= \frac{1}{\sqrt{M^2 - 1}} \frac{1}{M} \frac{1}{2k^2} \left[ \frac{1}{M} f_0^I(\bar{\omega}) + \frac{1}{M} J_0\left(\frac{\bar{\omega}}{M}\right) \sin \bar{\omega} - J_1\left(\frac{\bar{\omega}}{M}\right) \cos \bar{\omega} \right]
 \end{aligned}$$

$$B_1(\bar{\omega}) = \frac{1}{\sqrt{M^2 - 1}} \frac{1}{M} \frac{1}{2k^2} \left[ -\frac{2}{\bar{\omega}} J_1\left(\frac{\bar{\omega}}{M}\right) \cos \bar{\omega} + \frac{1}{M} J_0\left(\frac{\bar{\omega}}{M}\right) \cos \bar{\omega} + J_1\left(\frac{\bar{\omega}}{M}\right) \sin \bar{\omega} \right]$$

$$B_2(\bar{\omega}) = \frac{1}{\sqrt{M^2 - 1}} \frac{1}{M} \frac{1}{2k^2} \left[ \frac{2}{\bar{\omega}} J_1\left(\frac{\bar{\omega}}{M}\right) \sin \bar{\omega} - \frac{1}{M} J_0\left(\frac{\bar{\omega}}{M}\right) \sin \bar{\omega} + J_1\left(\frac{\bar{\omega}}{M}\right) \cos \bar{\omega} \right]$$

In the foregoing expressions there appears the important transcendental function defined by (see reference 1, equation (22))

$$f_0(M, \bar{\omega}) = f_0^R(\bar{\omega}) + i f_0^I(\bar{\omega}) = \frac{1}{\bar{\omega}} \int_0^{\bar{\omega}} e^{-iu} J_0\left(\frac{u}{M}\right) du \quad (4)$$

Values of this function can be obtained from the tables of references 1 and 2. It was found, in the course of making the calculations, that the numerical tables of reference 2 were not adequate for certain values of the frequency parameter. Therefore, supplementary tables of this basic function are included in the present paper (table I). It is noted in particular that the tables of reference 2 do not have enough significant digits for accurate calculation of the coefficients for the lowest values of reduced frequency. In connection with this remark it is pointed out that a few errors exist in the tables of reference 1 associated with the smallest values of  $\bar{\omega}$ . For very small values of the frequency parameter, other formulas may be listed for the component coefficients. These expressions can be obtained with the aid of the recursion formula given in reference 1, equation (21) and represent the proper expansions with only the first-order effect of the frequency retained. For convenience of reference the main formulas are listed herewith:

$$L_1 + iL_2 \approx \frac{1}{\sqrt{M^2 - 1}} \left\{ \frac{1}{M^2 - 1} + i \left[ \frac{2M^2}{\bar{\omega}(M^2 - 1)} + \frac{\bar{\omega}}{3} \right] \right\} \quad (5a)$$

$$L_3 + iL_4 \approx (L_3' + iL_4') - 2x_0(L_1 + iL_2) \quad (5b)$$

where

$$L_3' + iL_4' \approx \frac{1}{\sqrt{M^2 - 1}} \left\{ \frac{2(M^2 + 1)}{3(M^2 - 1)} + \frac{4M^4}{\bar{\omega}^2(M^2 - 1)^2} + i \left[ \frac{2M^2(M^2 - 2)}{\bar{\omega}(M^2 - 1)^2} + \frac{\bar{\omega}}{6} \right] \right\}$$

$$M_1 + iM_2 \approx \frac{1}{\sqrt{M^2 - 1}} \left\{ \frac{4}{3(M^2 - 1)} + i \left[ \frac{2M^2}{\bar{\omega}(M^2 - 1)} + \frac{\bar{\omega}}{2} \right] \right\} - 2x_0(L_1 + iL_2) \quad (5c)$$

$$M_3 + iM_4 \approx \frac{1}{\sqrt{M^2 - 1}} \left\{ \frac{M^2 + 1}{M^2 - 1} + \frac{4M^4}{\bar{\omega}^2(M^2 - 1)^2} + i \left[ \frac{8M^2(M^2 - 2)}{3\bar{\omega}(M^2 - 1)^2} + \frac{4\bar{\omega}}{15} \right] \right\} - 2x_0 [(L_3' + iL_4') + (M_1 + iM_2)] \quad (5d)$$

As mentioned, the present paper is concerned primarily with the evaluation of the quantities  $L_5$ ,  $L_6$ ,  $M_5$ ,  $M_6$ ,  $N_1$ ,  $N_2$ ,  $N_3$ ,  $N_4$ ,  $N_5$ , and  $N_6$ . The tables contain directly  $L_5$ ,  $L_6$ ,  $N_1$ ,  $N_2$ ,  $N_5$ , and  $N_6$ . Instead of listing  $N_3$  and  $N_4$  directly the related primed quantities  $N_3'$  and  $N_4'$  are given where

$$N_3 = N_3' - 2x_0 N_1$$

$$N_4 = N_4' - 2x_0 N_2$$

Tables of the coefficients  $M_5$  and  $M_6$  are not required since they can be obtained in terms of other tabulated quantities. Thus

$$M_5 = N_5 + 2(x_1 - x_0)L_5$$

$$M_6 = N_6 + 2(x_1 - x_0)L_6$$

Explicit analytical expressions have been employed in the calculation of the various functions tabulated in the present paper. These relations are equivalent to the expressions presented in reference 1 and follow from them by reduction and substitution and are defined as

$$\begin{aligned}
 L_5 &= (1 - x_1)^3 \left\{ L_1 [\bar{\omega}(1 - x_1)] + A_1 [\bar{\omega}(1 - x_1)] + \frac{1}{k(1 - x_1)} L_2 [\bar{\omega}(1 - x_1)] \right\} \\
 L_6 &= (1 - x_1)^3 \left\{ L_2 [\bar{\omega}(1 - x_1)] + A_2 [\bar{\omega}(1 - x_1)] - \frac{1}{k(1 - x_1)} L_1 [\bar{\omega}(1 - x_1)] \right\} \\
 N_1 &= x_1^3 [L_1(\bar{\omega}x_1) + A_1(\bar{\omega}x_1)] + M_1' - 2x_1 L_1(\bar{\omega}) \\
 N_2 &= x_1^3 [L_2(\bar{\omega}x_1) + A_2(\bar{\omega}x_1)] + M_2' - 2x_1 L_2(\bar{\omega}) \\
 N_3' &= x_1^4 \left\{ \frac{1}{kx_1} [L_2(\bar{\omega}x_1) - A_2(\bar{\omega}x_1)] - \frac{4}{3} [L_1(\bar{\omega}x_1) - B_1(\bar{\omega}x_1)] \right\} + \\
 &\quad 2x_1^4 [L_1(\bar{\omega}x_1) + A_1(\bar{\omega}x_1)] + M_3' - 2x_1 L_3' \\
 N_4' &= -x_1^4 \left\{ \frac{1}{kx_1} [L_1(\bar{\omega}x_1) - A_1(\bar{\omega}x_1)] + \frac{4}{3} [L_2(\bar{\omega}x_1) - B_2(\bar{\omega}x_1)] \right\} + \\
 &\quad 2x_1^4 [L_2(\bar{\omega}x_1) + A_2(\bar{\omega}x_1)] + M_4' - 2x_1 L_4' \\
 N_5 &= (1 - x_1)^4 \left( \frac{4}{3} \left\{ L_1 [\bar{\omega}(1 - x_1)] - B_1 [\bar{\omega}(1 - x_1)] \right\} + \right. \\
 &\quad \left. \frac{1}{k(1 - x_1)} \left\{ L_2 [\bar{\omega}(1 - x_1)] + A_2 [\bar{\omega}(1 - x_1)] \right\} \right) \\
 N_6 &= (1 - x_1)^4 \left( \frac{4}{3} \left\{ L_2 [\bar{\omega}(1 - x_1)] - B_2 [\bar{\omega}(1 - x_1)] \right\} - \right. \\
 &\quad \left. \frac{1}{k(1 - x_1)} \left\{ L_1 [\bar{\omega}(1 - x_1)] + A_1 [\bar{\omega}(1 - x_1)] \right\} \right)
 \end{aligned} \tag{6}$$

where

$$\frac{1}{k} = \frac{2M^2}{(M^2 - 1)\bar{\omega}}$$

and, for completeness,

$$N_3 = N_3' - 2x_0 N_1$$

$$N_4 = N_4' - 2x_0 N_2$$

$$M_5 = N_5 + 2(x_1 - x_0)L_5$$

$$M_6 = N_6 + 2(x_1 - x_0)L_6$$

It should be noted that the functions appearing in equations (6) are in the same form as those of equations (3) but that the arguments are different in that modified reduced frequencies are employed. Thus, for example,

$$A_1[\bar{\omega}(1 - x_1)] = \frac{1}{\sqrt{M^2 - 1}} \frac{1}{M} \frac{1}{2k^2(1 - x_1)^2} \left\{ \frac{1}{M} f_0^R [\bar{\omega}(1 - x_1)] - \right. \\ \left. \frac{1}{M} J_0 \left[ \frac{\bar{\omega}(1 - x_1)}{M} \right] \cos \bar{\omega}(1 - x_1) - J_1 \left[ \frac{\bar{\omega}(1 - x_1)}{M} \right] \sin \bar{\omega}(1 - x_1) \right\}$$

Also it should be observed that  $L_3'$ ,  $L_4'$ ,  $M_1'$ ,  $M_2'$ ,  $M_3'$ , and  $M_4'$  of equations (3) appear in the expressions, and in some of them, namely the equations for  $N_1$ ,  $N_2$ ,  $N_3'$ , and  $N_4'$ , both  $\bar{\omega}$  and  $\bar{\omega}x_1$  appear in the arguments.

Approximate expressions similar to those for  $L_1$ ,  $L_2$ ,  $L_3$ ,  $L_4$ ,  $M_1$ ,  $M_2$ ,  $M_3$ , and  $M_4$  given in equation (5) may be obtained with the

aid of the recursion formula given in reference 1, equation (21) and are as follows:

$$\begin{aligned}
 L_5 + iL_6 &\approx \frac{1 - x_1}{\sqrt{M^2 - 1}} \left\{ \frac{2(M^2 + 1)(1 - x_1)^2}{3(M^2 - 1)} + \frac{4M^4}{\bar{\omega}^2(M^2 - 1)^2} + \right. \\
 &\quad \left. i \left[ \frac{2M^2(M^2 - 2)(1 - x_1)}{\bar{\omega}(M^2 - 1)^2} + \frac{\bar{\omega}(1 - x_1)^3}{6} \right] \right\} \\
 M_5 + iM_6 &\approx (N_5 + iN_6) + 2(x_1 - x_0)(L_5 + iL_6) \\
 N_1 + iN_2 &\approx \frac{1}{\sqrt{M^2 - 1}} \left\{ \frac{2(2 - 3x_1 + x_1^3)}{3(M^2 - 1)} + i \left[ \frac{2M^2(1 - 2x_1 + x_1^2)}{\bar{\omega}(M^2 - 1)} + \right. \right. \\
 &\quad \left. \left. \frac{\bar{\omega}(3 - 4x_1 + x_1^4)}{6} \right] \right\} \\
 N_3 + iN_4 &\approx \frac{1}{\sqrt{M^2 - 1}} \left\{ \frac{(M^2 + 1)(3 - 4x_1 + x_1^4)}{3(M^2 - 1)} + \frac{4M^4(1 - 2x_1 + x_1^2)}{\bar{\omega}^2(M^2 - 1)^2} + \right. \\
 &\quad \left. i \left[ \frac{4M^2(M^2 - 2)(2 - 3x_1 + x_1^3)}{3\bar{\omega}(M^2 - 1)^2} + \frac{\bar{\omega}(4 - 5x_1 + x_1^5)}{15} \right] \right\} \\
 2x_0(N_1 + iN_2) \\
 N_5 + iN_6 &\approx \frac{(1 - x_1)^2}{\sqrt{M^2 - 1}} \left\{ \frac{(M^2 + 1)(1 - x_1)^2}{M^2 - 1} + \frac{4M^4}{\bar{\omega}^2(M^2 - 1)^2} + \right. \\
 &\quad \left. i \left[ \frac{8M^2(M^2 - 2)(1 - x_1)}{3\bar{\omega}(M^2 - 1)^2} + \frac{4\bar{\omega}(1 - x_1)^3}{15} \right] \right\}
 \end{aligned} \tag{7}$$

It may be remarked that these formulas can be useful as a basis for interpolation between Mach numbers in the tables presented.

The case of a full-chord control surface hinged at the wing leading edge corresponds to  $x_1 = 0$ . Values for this particular case are not presented in the tables. However, in this case the aileron coefficients can be expressed in terms of the wing coefficients of reference 1 as follows:

$$\begin{aligned}
 L_5 &= L_3' \\
 L_6 &= L_4' \\
 M_5 &= M_3' - 2x_0 L_3' \\
 M_6 &= M_4' - 2x_0 L_4' \\
 N_1 &= M_1' \\
 N_2 &= M_2' \\
 N_3 &= M_3' - 2x_0 M_1' \\
 N_4 &= M_4' - 2x_0 M_2' \\
 N_5 &= M_3' \\
 N_6 &= M_4'
 \end{aligned} \tag{8}$$

All digits in these tables are believed significant, the last digit, however, having been rounded off. In the course of the automatic

calculations seven significant digits were carried and ten significant digits were used in the check computations.

Langley Aeronautical Laboratory  
National Advisory Committee for Aeronautics  
Langley Air Force Base, Va., Dec. 20, 1949

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TABLE I.- VALUES OF  $\xi_0(\bar{m}) = \xi_0^R + i\xi_0^I$   
(a)  $\mu = \frac{10}{3}$

$\xi$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$\delta$	$\xi_0^R$	$\xi_0^I$								
20.00	0.13665	0.48147	0.27133	0.29376	0.17593	0.27930	0.18786	0.21774	0.086819	0.186584
12.00	.72924	.46060	.34150	.13846	.26970	.30153	.24599	.30511	.11071	.21185
10.00	.79139	.41597	.43625	.187147	.27121	.29376	.27133	.23364	.11547	.21310
9.00	.82931	.38165	.48860	.50041	.59338	.39370	.26970	.30153	.15423	.21774
8.00	.86213	.35551	.56368	.50170	.34450	.43846	.27120	.30511	.16377	.23999
7.00	.89236	.31977	.61370	.48861	.47752	.28891	.37917	.26905	.16378	.24647
6.00	.91397	.28073	.72024	.46060	.50041	.34150	.43846	.27121	.16378	.24647
5.00	.94334	.23973	.79439	.41597	.60377	.49720	.45625	.48147	.12415	.24595
4.20	.95963	.20328	.81928	.36880	.69734	.47080	.53988	.50275	.11752	.24595
3.60	.97016	.17575	.88654	.32719	.76527	.45272	.65816	.49860	.10041	.24595
3.20	.97634	.15700	.90908	.29572	.80358	.40511	.68958	.56868	.10210	.24595
2.80	.98183	.13199	.95951	.26126	.84928	.35881	.75041	.64740	.10612	.24595
2.50	.98548	.12357	.96134	.23873	.87760	.33807	.79439	.64597	.10720	.24595
2.20	.98871	.10902	.95580	.21228	.90363	.30453	.83152	.75186	.10431	.24595
2.10	.98973	.10115	.95963	.20328	.91175	.29277	.84928	.77630	.10265	.24595
1.90	.99159	.094369	.96632	.18703	.97496	.263812	.87496	.81203	.10230	.24595
1.68	.99312	.083564	.97395	.16154	.94246	.21016	.90031	.30916	.10331	.24595
1.50	.99475	.071639	.97917	.14773	.95382	.21675	.91937	.28073	.87760	.24595
1.40	.99542	.065747	.98193	.13799	.95963	.20328	.92356	.28426	.89236	.24595
1.30	.99605	.061798	.98431	.12839	.96593	.18960	.93888	.24735	.90637	.24595
1.10	.99717	.054877	.98874	.10902	.97486	.26172	.95510	.21700	.90637	.24595
1.00	.99766	.049088	.99068	.099265	.97397	.18733	.96331	.19434	.91334	.24595
.90	.99811	.044933	.99215	.089463	.98309	.13320	.97016	.11757	.98916	.24595
.84	.99835	.041195	.99312	.083564	.98425	.12453	.98144	.16494	.98928	.24595
.80	.99850	.038953	.99403	.073623	.98661	.11873	.97645	.15700	.98931	.24595
.70	.99885	.034968	.99512	.069747	.98973	.10445	.98183	.13759	.97177	.24595
.60	.99916	.029980	.99663	.059841	.99245	.089163	.98661	.11873	.97927	.24595
.56	.99927	.027984	.99707	.053870	.99342	.083564	.98933	.11097	.98183	.24595
.52	.99937	.025987	.99717	.051866	.99132	.077650	.98933	.10317	.98131	.24595
.36	.99970	.017996	.99879	.035966	.99727	.053384	.99516	.071725	.99245	.24595
.26	.99984	.012398	.99937	.025987	.99858	.038956	.99717	.064798	.99332	.24595
.16	.99994	.0075996	.99976	.015997	.99946	.023990	.99904	.031976	.99850	.24595
.10	.99998	.0016999	.99991	.009993	.99979	.014998	.99963	.019994	.99941	.24595

NACA

TABLE I.- VALUES OF  $r_0(\sin \alpha) = r_0^R + i r_0^I$  - Continued(b)  $M = \frac{5}{4}$ 

$r$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$\alpha$	$r_0^R$	$-r_0^I$								
20.00	0.4403	0.52914	0.21982	0.32598	0.31593	0.082094	0.25395	0.010801	0.19128	-0.015488
10.00	.80405	.44053	.24334	.21982	.21982	.19004	.32200	.12199	.31593	.089285
5.00	.91638	.24000	.61290	.61770	.52337	.44053	.51666	.21334	.40580	.22016
4.40	.95816	.21316	.80405	.83640	.53111	.51338	.20661	.45704	.35039	.21284
3.30	.97634	.16269	.90890	.90597	.60751	.60751	.56137	.53126	.39223	.21539
2.80	.98291	.13922	.93348	.86063	.59597	.60640	.49758	.53126	.45704	.26444
2.60	.98524	.12857	.91235	.24877	.37138	.76120	.45670	.50966	.55034	.26581
2.40	.98741	.11888	.89261	.89261	.35218	.79004	.43630	.69101	.19448	.33922
2.20	.98941	.10913	.95836	.21336	.80382	.81321	.41312	.73172	.47409	.46844
2.00	.99124	.099349	.95645	.19434	.92404	.86928	.28389	.80105	.12490	.46844
1.90	.99159	.097387	.96679	.19114	.92593	.87708	.27767	.80105	.12490	.46844
1.84	.99258	.091493	.97067	.17938	.93530	.88909	.33689	.83119	.40077	.46844
1.66	.99336	.084627	.97606	.16304	.91659	.80896	.30896	.80544	.31093	.46844
1.56	.99446	.077691	.97883	.077691	.95303	.82980	.29288	.87288	.35338	.46844
1.40	.99519	.073736	.98092	.11590	.95761	.79555	.27955	.88959	.33805	.46844
1.34	.99566	.066804	.98433	.12244	.96511	.92973	.19277	.90626	.31135	.46844
1.24	.99622	.061844	.98657	.12276	.97004	.91740	.23824	.92193	.29116	.46844
1.10	.99731	.051891	.98944	.10933	.97634	.92136	.18184	.91740	.30737	.46844
1.06	.99793	.052903	.99016	.10522	.97801	.96120	.16209	.90109	.29313	.46844
.98	.99799	.04923	.99159	.097387	.98117	.98117	.14494	.96679	.19114	.46844
.96	.99806	.046932	.99226	.09321	.99226	.98267	.13918	.98267	.13918	.46844
.88	.99830	.043944	.99321	.087556	.98479	.97313	.13051	.97313	.21336	.46844
.82	.99832	.040955	.99410	.0816161	.985678	.97663	.12179	.97663	.16114	.46844
.78	.99846	.039561	.99466	.051908	.98603	.98603	.11596	.97883	.15354	.46844
.74	.99850	.039567	.99507	.039567	.99507	.98922	.11011	.98922	.11011	.46844
.70	.99862	.031972	.99570	.069776	.99035	.99035	.10125	.98922	.17934	.46844
.66	.99865	.032977	.99635	.059359	.99635	.99635	.10351	.97634	.21336	.46844
.60	.99868	.029892	.99684	.057556	.99684	.99684	.10888	.98061	.17631	.46844
.56	.99891	.027986	.99724	.055895	.99581	.99581	.10903	.98821	.11109	.46844
.52	.99914	.025949	.99762	.051908	.99466	.99466	.107691	.99053	.107691	.46844
.48	.99919	.023991	.99797	.047528	.99545	.99545	.10192	.98741	.11838	.46844
.44	.99927	.021993	.99830	.043944	.99617	.99617	.087556	.98941	.10913	.46844
.40	.99965	.019995	.99905	.039559	.99938	.99938	.059359	.99634	.11889	.46844
.36	.99971	.017996	.99986	.026994	.99714	.99714	.052897	.99245	.107691	.46844
.34	.99975	.016997	.99990	.033974	.99771	.99771	.057192	.98450	.11790	.46844
.32	.99977	.015997	.99991	.021993	.99797	.99797	.063828	.99438	.10903	.46844
.30	.99980	.014998	.99982	.028982	.99822	.99822	.044911	.99634	.11838	.46844
.28	.99983	.013998	.99983	.023993	.99798	.99798	.057556	.99510	.09776	.46844
.24	.99986	.0059998	.99983	.033995	.99997	.99997	.020994	.99931	.014998	.46844
.06	.99999	.0030000	.99999	.0059999	.99997	.99997	.003995	.99931	.014998	.46844

NACA

TABLE I.—VALUES OF  $\tau_0(\bar{x}) = \tau_0^R + \tau_0^I$  — Continued  
 (c)  $M = \frac{10}{7}$

$x$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$\alpha$	$\tau_0^R$	$-\tau_0^I$								
20.00	0.44414	0.56766	0.35162	0.668077	0.36622	0.0890293	0.28994	-0.027900	0.18977	-0.021274
10.00	8.1267	4.2839	1.44414	.56766	.35162	.13730	.33799	.017312	.27258	.0090293
5.00	9.1944	.96893	.19076	.81267	.42839	.53786	.29827	.52776	.16836	.33736
3.90	9.8026	.98026	.15232	.96893	.19076	.50613	.46334	.39841	.19493	.114062
3.10	9.8026	.98026	.15232	.96893	.19076	.49702	.60226	.49866	.19493	.114062
2.40	9.8812	.11904	.23214	.95331	.96767	.42958	.71402	.18774	.56144	.53919
2.00	9.9173	.091925	.36734	.19513	.98201	.28440	.87563	.13889	.71202	.52840
1.60	9.9170	.079704	.23214	.97897	.19765	.30162	.87563	.36471	.45774	.50573
1.34	9.9628	.066326	.13252	.98521	.96702	.22710	.91105	.87563	.42028	.41312
1.18	9.9711	.058881	.98521	.11705	.97443	.17392	.95482	.22852	.86200	.83315
1.06	9.9767	.052324	.99072	.10531	.97923	.15659	.96338	.20656	.91330	.87447
.94	9.9817	.046940	.99269	.09321	.98353	.13939	.97109	.18120	.95219	.91105
.88	9.9839	.043251	.99359	.087607	.98564	.13058	.97462	.17288	.96662	.91393
.82	9.9861	.040950	.99443	.0811682	.98772	.12193	.97792	.16147	.95712	.90310
.78	9.9874	.038966	.99496	.077726	.98870	.11608	.98000	.121382	.96932	.90556
.74	9.9886	.036971	.99547	.073165	.98983	.11021	.98198	.114514	.97399	.90777
.70	9.9898	.034975	.99594	.070089	.99039	.10433	.98386	.118482	.97190	.91216
.66	9.9910	.032992	.99639	.068534	.99320	.098564	.97765	.10765	.96242	.90906
.62	9.9920	.030883	.99681	.0621652	.99285	.092346	.98732	.112290	.98265	.90225
.60	9.9925	.02995	.99694	.059875	.99330	.089279	.98812	.11900	.98356	.89795
.56	9.9935	.0275987	.99710	.052599	.99416	.08964	.98964	.11119	.98386	.89331
.52	9.9944	.025900	.99729	.057726	.99516	.077726	.99006	.10335	.98405	.89231
.48	9.9952	.023992	.99736	.051784	.99600	.069302	.99812	.10765	.98567	.89132
.44	9.9960	.021994	.99839	.043951	.99639	.05834	.99359	.087507	.99001	.89023
.40	9.9967	.019955	.99867	.038963	.99702	.059875	.99704	.079704	.99173	.88956
.36	9.9973	.0175977	.99892	.035309	.99758	.053751	.997184	.093037	.99205	.88857
.34	9.9976	.016997	.99904	.033977	.9981	.050923	.99617	.067818	.99110	.88706
.32	9.9979	.015998	.99915	.02599	.99819	.047936	.99812	.059402	.99033	.88597
.30	9.9992	.014998	.99925	.029981	.99832	.041947	.99702	.059875	.99033	.88490
.28	9.9994	.013998	.99935	.027987	.99837	.039954	.99740	.058599	.99033	.88396
.26	9.9996	.012999	.99944	.025990	.99866	.038666	.99776	.056192	.99033	.88297
.24	9.9998	.011999	.99952	.023992	.99862	.035973	.99809	.0417936	.99033	.88196
.22	9.9999	.010999	.99960	.021994	.99810	.032979	.99839	.0433921	.99033	.88095
.20	9.9992	.009994	.99967	.01995	.99809	.029981	.99867	.039963	.99033	.87995
.18	9.9995	.007997	.99979	.015998	.99922	.023992	.99195	.031981	.99033	.87895
.16	9.9998	.004999	.99992	.014998	.99967	.0219948	.99898	.0249921	.99033	.87795
.14	9.9999	.0030000	.99997	.0059999	.99993	.0088996	.99988	.0131999	.99033	.87695
.12	9.9999	.0020000	.99999	.0040000	.99997	.0059999	.99995	.0079997	.99033	.87595
.10	9.9999	.0010000	.99999	.0020000	.99999	.0059999	.99995	.0019997	.99033	.87495
.08	9.9999	.0000000	.99999	.0000000	.99999	.0059999	.99995	.0019997	.99033	.87395

NACA

TABLE I.- VALUES OF  $\xi_0(\bar{\omega}_r) = \xi_0^R + i\xi_0^I$  - Continued(d)  $M = \frac{5}{3}$ 

$x$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$\bar{\omega}$	$\xi_0^R$	$-\xi_0^I$	$\xi_0^R$	$-\xi_0^I$	$\xi_0^R$	$-\xi_0^I$	$\xi_0^R$	$-\xi_0^I$	$\xi_0^R$	$-\xi_0^I$
20.00	0.44713	0.60297	0.89550	0.37235	0.02200	0.30713	-0.0414903	0.0385105	-0.0344080	0.0327144
10.00	.62022	.43390	.44713	.60297	.17294	.56672	.0731031	.32466	.0756464	.0303968
5.00	.95193	.24211	.82622	.13990	.63792	.56289	.44713	.57152	.17294	.15135
3.10	.98126	.15310	.92597	.09200	.61623	.61853	.05934	.57056	.19904	.085252
2.50	.98778	.12100	.95193	.06121	.81390	.73281	.03480	.51182	.63792	.085252
1.90	.99292	.09156	.97197	.01791	.86216	.82488	.03533	.42314	.77221	.157100
1.60	.99498	.07938	.98005	.015791	.95562	.92337	.03117	.83315	.46356	.57492
1.30	.99568	.06185	.98379	.012888	.97019	.19123	.02011	.30706	.88672	.592118
1.10	.99762	.054915	.99052	.010932	.97679	.16271	.01460	.26146	.91211	.592118
.94	.99826	.045947	.99207	.0093575	.98147	.13957	.01075	.22843	.93921	.592118
.84	.99851	.041962	.99146	.0083596	.98578	.12918	.00982	.16559	.95836	.592118
.76	.99866	.037912	.99247	.0075775	.99882	.11384	.00193	.15021	.97197	.592118
.68	.99909	.033980	.99637	.006839	.99185	.10146	.00555	.13471	.97750	.592118
.62	.99924	.030985	.99598	.0068178	.99222	.092588	.00197	.12303	.98126	.592118
.58	.99934	.028987	.99736	.0057900	.99106	.085663	.00197	.11520	.98359	.592118
.54	.99943	.026990	.99771	.0053919	.99185	.080728	.00197	.10756	.98576	.592118
.50	.99951	.024992	.99804	.0049904	.99216	.079190	.00197	.10778	.98624	.592118
.48	.99955	.023993	.99819	.0047943	.99277	.095277	.00197	.10973	.98381	.592118
.44	.99962	.021995	.99848	.0043956	.99558	.0658593	.00197	.10932	.98638	.592118
.42	.99965	.020995	.99861	.0040962	.99688	.068872	.00197	.10411	.98758	.592118
.40	.99969	.019974	.99874	.0039967	.99701	.059889	.00197	.10916	.98713	.592118
.38	.99972	.018996	.99886	.0037972	.99745	.0565905	.00197	.107575	.99292	.592118
.36	.99975	.017997	.99898	.0035976	.99771	.0539319	.00197	.10809	.99365	.592118
.34	.99977	.016997	.99909	.0033980	.99796	.0509332	.00197	.10793	.99433	.592118
.32	.99980	.015998	.99919	.0031983	.99819	.047943	.00197	.10476	.99505	.592118
.30	.99982	.014998	.99929	.0029986	.99836	.043953	.00197	.10136	.99578	.592118
.28	.99985	.013999	.99938	.0027989	.99861	.041962	.00197	.105615	.99646	.592118
.26	.99987	.012999	.99947	.0025991	.99880	.036970	.00197	.102928	.99689	.592118
.24	.99989	.011999	.99955	.0023993	.99898	.033976	.00197	.107943	.99717	.592118
.22	.99990	.010999	.99962	.0021995	.99914	.032982	.00197	.1043956	.99762	.592118
.20	.99992	.009999	.99969	.0019996	.99969	.029986	.00197	.10141	.99816	.592118
.18	.99994	.008994	.99975	.0019996	.99975	.026990	.00197	.10141	.99865	.592118
.16	.99995	.007995	.99980	.0019997	.99980	.023993	.00197	.10141	.99915	.592118
.08	.99999	.0010000	.99995	.0009999	.99995	.008996	.00197	.10141	.99965	.592118
.06	.99999	.0030000	.99999	.0020000	.99999	.0059995	.00197	.10141	.99989	.592118
.04	.99999	.0060000	.99999	.0040000	.99999	.0019997	.00197	.10141	.99995	.592118



TABLE I.- VALUES OF  $x_0(\bar{x}_0) = x_0^R + i x_0^I$  - Continued(e)  $N = 2$ 

$r$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$\omega$	$x_0^R$	$-x_0^I$	$x_0^R$	$-x_0^I$	$x_0^R$	$-x_0^I$	$x_0^R$	$-x_0^I$	$x_0^R$	$-x_0^I$
20.00	0.44925	0.63383	0.039164	0.38787	-0.033735	0.23229	-0.061854	0.11233	-0.0059704	0.086132
10.00	.82665	.44955	.63383	.12904	.55116	.51666	.04957	.38787	.0078228	.02025602
5.00	.95404	.24289	.44957	.26113	.88316	.37567	.70367	.57980	.47247	.013735
2.70	.98641	.13388	.94657	.92787	.30100	.87104	.81041	.46272	.57312	.55891
2.10	.99176	.10447	.96738	.079766	.98095	.23375	.30533	.88289	.37172	.56230
1.60	.99231	.061874	.98139	.19162	.19463	.50537	.2207	.92337	.37172	.88289
1.30	.99484	.051924	.99296	.10393	.91976	.16295	.56125	.94462	.23375	.89125
1.10	.99773	.051924	.99394	.13388	.98641	.17735	.97595	.96663	.079766	.94219
.90	.99848	.044958	.99394	.08566	.98566	.15833	.98095	.14657	.079766	.94219
.80	.99980	.035971	.99221	.079766	.98925	.10738	.99590	.079737	.079737	.94219
.74	.99997	.036977	.99590	.079776	.99590	.079776	.079776	.97161	.18212	.94219
.70	.99990	.031900	.99633	.063843	.992176	.10447	.98539	.07975	.07975	.94219
.64	.99932	.031905	.99693	.063880	.99311	.095595	.098778	.12704	.98095	.18013
.58	.99937	.026999	.99748	.057911	.99434	.086659	.086659	.11529	.98134	.13388
.54	.99945	.026991	.99781	.059509	.99509	.087927	.095928	.10712	.98641	.13388
.50	.99953	.024993	.99813	.049493	.994807	.059252	.095945	.098834	.12611	.99324
.46	.99960	.022994	.99814	.045955	.996850	.068850	.099367	.091614	.99012	.11430
.42	.99967	.020996	.99863	.041956	.99703	.062385	.062385	.08172	.083729	.09176
.40	.99970	.019996	.99880	.039971	.99920	.059920	.059920	.09952	.09952	.09952
.38	.99973	.018997	.99892	.037975	.99757	.056915	.056915	.071829	.071829	.071829
.36	.99976	.017997	.99903	.033979	.99781	.053938	.053938	.09394	.09394	.09394
.34	.99973	.016998	.99913	.029983	.99913	.050939	.050939	.067956	.067956	.067956
.30	.99983	.014998	.99933	.025983	.99818	.044998	.044998	.059730	.059730	.059730
.28	.99985	.013999	.99941	.021990	.99868	.041966	.041966	.059765	.059765	.059765
.26	.99987	.012999	.99949	.025992	.99886	.038973	.038973	.059797	.059797	.059797
.24	.99989	.011999	.99957	.023994	.99903	.035975	.035975	.059821	.059821	.059821
.22	.99991	.010999	.99964	.021995	.99915	.035982	.035982	.059852	.059852	.059852
.20	.99992	.009995	.99970	.019996	.99933	.029988	.029988	.059880	.059880	.059880
.18	.99994	.0089997	.99977	.017997	.99916	.034995	.034995	.059902	.059902	.059902
.16	.99995	.0079998	.99981	.015998	.99937	.023994	.023994	.059923	.059923	.059923
.14	.99996	.0069998	.99985	.013999	.99941	.023996	.023996	.059941	.059941	.059941
.10	.99998	.0049999	.99992	.0099995	.99992	.014999	.014999	.059953	.059953	.059953
.06	.99999	.0030000	.99999	.0099997	.99997	.014999	.014999	.059983	.059983	.059983
.04	1.00000	.0020000	.99999	.0040000	.99997	.009999	.009999	.059992	.059992	.059992
.02	1.00000	.0010000	1.00000	.0020000	.99999	.0040000	.0040000	.059998	.059998	.059998



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TABLE I.- VALUES OF  $f_0(\bar{w}_R) = f_0^R + if_0^I$  - Concluded

$r$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$\omega$	$f_0^R$	$-f_0^I$	$f_0^R$	$-f_0^I$	$f_0^R$	$-f_0^I$	$f_0^R$	$-f_0^I$	$f_0^R$	$-f_0^I$
20.00	0.453145	0.65989	-0.047221	0.39882	-0.035318	0.19877	-0.016765	-0.047221	0.022161	0.067144
10.00	0.83196	1.55833	-0.45345	0.5689	-0.39802	0.11532	-0.025202	0.067144	0.0667144	0.053776
5.00	0.95577	2.31362	-0.5083	0.46333	-0.59774	0.58389	-0.052202	-0.035158	0.088572	-0.015659
4.80	0.95918	2.11923	-0.48130	0.46333	-0.56059	0.65136	-0.052202	-0.035158	0.088479	-0.015659
2.40	0.96967	1.19223	-0.23435	0.30956	-0.39802	0.65136	-0.052202	-0.035158	0.088479	-0.015659
1.90	0.93352	0.914616	-0.16281	0.27558	-0.90609	0.35796	-0.43641	-0.76167	0.7805	-0.647455
1.40	0.94741	0.959511	-0.13887	0.27558	-0.90609	0.94476	-0.78101	-0.83270	0.81921	-0.58393
1.20	0.97441	0.659211	-0.10354	0.98957	-0.19229	0.17660	-0.21107	-0.91773	0.90413	-0.19177
1.04	0.98005	0.515942	-0.09224	0.99224	-0.10354	0.96926	-0.15444	-0.20131	0.20131	-0.19177
.96	0.9834	0.167954	-0.09238	0.98535	-0.09238	0.98535	-0.14277	-0.18910	0.18910	-0.14277
.86	0.9867	0.023697	-0.09169	0.98737	-0.08737	0.98737	-0.14277	-0.18887	0.18887	-0.14277
.78	0.9821	0.336795	-0.07804	0.98563	-0.11634	0.98563	-0.15444	-0.20921	0.19281	-0.15444
.72	0.9907	0.035981	-0.071816	0.98516	-0.10718	0.98516	-0.14277	-0.17760	0.17760	-0.14277
.68	0.99217	0.333594	-0.06870	0.98675	-0.10156	0.98675	-0.13916	-0.16198	0.16198	-0.13916
.62	0.99321	0.03988	-0.061902	0.98568	-0.09233	0.98568	-0.13547	-0.15347	0.15347	-0.13547
.58	0.99339	0.28969	-0.057939	0.99146	-0.085136	0.99035	-0.11336	-0.98195	0.14375	-0.11336
.52	0.99521	0.0515942	-0.052993	0.99805	-0.077804	0.99224	-0.10334	-0.98789	0.12909	-0.10334
.48	0.99959	0.023694	-0.047954	0.99834	-0.047954	0.99338	-0.095635	-0.98657	0.11989	-0.095635
.46	0.99626	0.02395	-0.042956	0.99844	-0.042956	0.99292	-0.06179	-0.99051	0.11337	-0.06179
.42	0.99968	0.023696	-0.046959	0.99873	-0.046959	0.99193	-0.037197	-0.98822	0.12336	-0.037197
.38	0.99714	0.018697	-0.037197	0.99986	-0.037197	0.99986	-0.01646	-0.90652	0.094646	-0.01646
.34	0.99977	0.017598	-0.035981	0.99907	-0.035981	0.99907	-0.018116	-0.98622	0.096181	-0.018116
.32	0.99982	0.015983	-0.033984	0.99917	-0.033984	0.99917	-0.017870	-0.99481	0.09714	-0.017870
.30	0.99984	0.014999	-0.029899	0.99935	-0.029899	0.99935	-0.017954	-0.98313	0.098313	-0.017954
.28	0.99985	0.013999	-0.027991	0.99944	-0.027991	0.99944	-0.018697	-0.98687	0.099687	-0.018697
.26	0.99988	0.0125999	-0.023993	0.99951	-0.023993	0.99951	-0.019442	-0.98905	0.099715	-0.019442
.24	0.99990	0.0123999	-0.023999	0.99959	-0.023999	0.99959	-0.019754	-0.99043	0.099805	-0.019754
.22	0.99991	0.0106999	-0.023995	0.99965	-0.023995	0.99965	-0.019343	-0.99131	0.09981	-0.019343
.20	0.99993	0.0030000	-0.023996	0.99971	-0.023996	0.99971	-0.019462	-0.99148	0.09981	-0.019462
.18	0.99994	0.0010000	-0.0166999	0.99997	-0.0166999	0.99997	-0.017954	-0.99208	0.09997	-0.017954
.16	0.99995	0.0079998	-0.0129999	0.99998	-0.0129999	0.99998	-0.019442	-0.99267	0.09998	-0.019442
.14	0.99996	0.0066999	-0.0139999	0.99998	-0.0139999	0.99998	-0.017954	-0.99338	0.09998	-0.017954
.12	0.99997	0.0056999	-0.0119999	0.99999	-0.0119999	0.99999	-0.017954	-0.99419	0.09998	-0.017954
.06	0.99999	0.0020000	-0.0166999	0.99997	-0.0166999	0.99997	-0.017954	-0.99568	0.09998	-0.017954
.04	0.99999	0.0010000	-0.0106999	0.99999	-0.0106999	0.99999	-0.017954	-0.99638	0.09998	-0.017954
.02	1.00000	0.0010000	-0.0010000	1.00000	-0.0010000	1.00000	-0.0010000	-0.99701	0.09998	-0.0010000

TABLE II.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

$$\text{FOR } M = \frac{10}{9}$$

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 20.00; \frac{1}{k} = 0.52632$								
.1	0.23756	0.35211	-0.066825	0.38204	0.20179	0.51981	0.20745	0.44008
.2	.21091	.27448	-.054681	.30652	.15852	.43066	.16217	.30814
.3	.18802	.20758	-.042198	.23882	.12076	.34486	.12797	.20745
.4	.16162	.14602	-.031401	.17805	.088007	.26484	.093432	.12736
.5	.13453	.098895	-.021429	.12514	.060477	.19177	.063883	.075443
.6	.11092	.056329	-.013694	.081266	.038424	.12798	.042480	.036752
.7	.080969	.023990	-.007810	.045919	.021261	.075054	.021490	.014283
.8	.058184	.004596	-.003443	.020623	.009364	.034707	.010333	.004138
.9	.033420	-.012912	-.001231	.005212	.002325	.009198	.002391	-.001223
$\bar{\omega} = 12.00; \frac{1}{k} = 0.87720$								
.1	0.68141	0.54405	-0.079099	0.54489	0.58539	0.84425	0.59446	0.73143
.2	.59555	.41187	-.066422	.43826	.46541	.69802	.44836	.50703
.3	.53428	.29041	-.053686	.33773	.35495	.55834	.35612	.32409
.4	.45897	.20712	-.041916	.25278	.26183	.42837	.25886	.21563
.5	.37486	.11107	-.027293	.17799	.18173	.30751	.16582	.11021
.6	.32136	.042802	-.017557	.11396	.11496	.20436	.11760	.047731
.7	.23711	.007095	-.009215	.065920	.065279	.11872	.059307	.022974
.8	.16540	-.050961	-.001937	.028840	.028270	.053000	.022385	-.006138
.9	.12557	-.041978	-.000411	.006223	.006192	.013688	.011005	-.005168
$\bar{\omega} = 10.00; \frac{1}{k} = 1.0526$								
.1	0.97159	0.59706	-0.11069	0.60631	0.82791	1.0447	0.82258	0.83798
.2	.88738	.45064	-.099115	.48798	.66031	.86886	.67968	.58804
.3	.76627	.33277	-.080936	.37478	.50401	.69504	.49866	.41144
.4	.64775	.19192	-.067975	.27566	.36819	.53736	.34384	.22853
.5	.57167	.086101	-.052332	.19560	.25769	.39114	.25987	.11088
.6	.46548	.036770	-.034125	.12581	.16411	.25947	.16533	.066212
.7	.33371	-.038863	-.022414	.068715	.089519	.15389	.072597	.014026
.8	.26736	-.10330	-.013762	.031482	.040286	.074203	.038264	-.019564
.9	.19345	-.056046	-.004076	.009158	.011187	.019711	.017660	-.007093
$\bar{\omega} = 9.00; \frac{1}{k} = 1.1696$								
.1	1.2304	0.63473	-0.056179	0.65114	1.0136	1.1087	1.0594	0.92591
.2	1.0879	.49096	-.055139	.52384	.80928	.92277	.81813	.68150
.3	.93023	.32205	-.042128	.40296	.61943	.73370	.58107	.42866
.4	.82377	.16357	-.034276	.29300	.44973	.56286	.44181	.22166
.5	.72213	.081501	-.027961	.20520	.31233	.40951	.33078	.13021
.6	.56204	.016817	-.015724	.13379	.20114	.26903	.18744	.072611
.7	.41951	-.090270	-.005232	.072255	.10912	.15282	.086364	-.002048
.8	.35498	-.14131	-.002824	.028126	.043897	.070841	.053358	-.029682
.9	.24619	-.065170	-.001929	.006236	.010036	.019603	.022875	-.008338



TABLE II.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{10}{9}$  — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 8.00; \frac{1}{k} = 1.3158$								
.1	1.5490	0.69905	-0.053130	0.77302	1.3466	1.2542	1.3105	1.0916
.2	1.3466	.48695	-.058910	.62714	1.0833	1.0504	.96584	.73173
.3	1.2009	.27481	-.046001	.49115	.84108	.83542	.74624	.41271
.4	1.0846	.14446	-.034881	.36242	.61811	.63745	.59536	.24164
.5	.90913	.071817	-.030375	.25503	.43170	.46565	.40364	.16165
.6	.69650	-.040094	-.022009	.17220	.28575	.31117	.21193	.061993
.7	.55821	-.17199	-.007882	.10369	.16802	.17545	.11333	-.031073
.8	.48541	-.19008	.001375	.046709	.075001	.074799	.076979	-.042862
.9	.32037	-.076337	.001483	.010692	.017470	.018016	.030237	-.009859
$\bar{\omega} = 7.00; \frac{1}{k} = 1.5038$								
.1	1.9771	0.68447	-0.097392	0.81040	1.6748	1.5133	1.5878	1.1713
.2	1.7927	.41021	-.10941	.65318	1.3428	1.2844	1.2731	.70406
.3	1.6436	.23241	-.094899	.51249	1.0450	1.0324	1.0497	.43547
.4	1.4332	.13510	-.074410	.37685	.76730	.78994	.77779	.30843
.5	1.1541	.013924	-.062656	.25725	.52580	.58107	.47113	.17629
.6	.91606	-.16653	-.054767	.16648	.33815	.40309	.25521	.014311
.7	.79162	-.29558	-.039774	.10174	.20057	.24527	.16648	-.078202
.8	.68525	-.25306	-.018964	.051750	.097653	.11360	.11452	-.060032
.9	.42904	-.090386	-.003906	.014589	.026549	.027991	.041054	-.011766
$\bar{\omega} = 6.00; \frac{1}{k} = 1.7544$								
.1	2.7802	0.55206	0.043902	0.83561	2.1149	1.5781	2.2367	1.1222
.2	2.5709	.34242	-.001395	.66202	1.6793	1.3563	1.8816	.76369
.3	2.2759	.21453	-.011578	.51603	1.3025	1.0943	1.4409	.57141
.4	1.8969	.056757	-.003245	.37723	.95437	.82454	.94890	.36759
.5	1.5449	-.17992	.001698	.24714	.63900	.58663	.56017	.10823
.6	1.3232	-.40769	-.004621	.14128	.38183	.39759	.35817	-.098206
.7	1.1981	-.47692	-.013509	.070354	.20004	.24831	.27012	-.15027
.8	1.0046	-.33582	-.013719	.030039	.086776	.12584	.17607	-.082687
.9	.59697	-.10872	-.005464	.008316	.022905	.035497	.057803	-.014246
$\bar{\omega} = 5.00; \frac{1}{k} = 2.1053$								
.1	4.2114	0.47532	0.21737	1.1572	3.3328	1.6272	3.4724	1.3669
.2	3.7238	.29416	.12781	.92535	2.6651	1.4327	2.6453	1.0594
.3	3.1667	.038208	.082154	.73836	2.1034	1.1738	1.8099	.67724
.4	2.6696	-.31091	.071732	.56878	1.5982	.87492	1.1616	.22442
.5	2.3335	-.65156	.073998	.40475	1.1293	.58544	.78882	-.15175
.6	2.1389	-.82640	.068496	.25331	.71198	.34998	.61222	-.31303
.7	1.9382	-.74085	.048905	.13114	.37885	.18598	.47352	-.25754
.8	1.5476	-.44837	.023523	.050445	.15341	.083230	.28256	-.11348
.9	.87602	-.13385	.005294	.010450	.034220	.022916	.085669	-.017637



TABLE II.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{10}{9}$  — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 4.20; \frac{1}{k} = 2.5063$								
.1	5.8719	0.32848	0.12047	1.4241	4.8021	2.2438	4.5524	1.8173
.2	5.0880	-.088573	.007877	1.1354	3.8357	2.0480	3.2189	1.1104
.3	4.4202	-.59936	-.054008	.91203	3.0453	1.7606	2.2142	.34496
.4	3.9541	-1.0800	-.065350	.72331	2.3646	1.3920	1.6048	-.28171
.5	3.6649	-1.3684	-.043187	.54694	1.7464	.98940	1.2846	-.60341
.6	3.4140	-1.3528	-.011769	.37665	1.1792	.61505	1.0597	-.59475
.7	3.0092	-1.0410	.009255	.22175	.68598	.32015	.78044	-.38064
.8	2.2997	-.57264	.012878	.099389	.30680	.12702	.43149	-.14738
.9	1.2574	-.16210	.005371	.024055	.074900	.028047	.12379	-.021435
$\bar{\omega} = 3.60; \frac{1}{k} = 2.9240$								
.1	7.7492	-0.36341	0.10422	1.3789	5.7399	2.7709	5.3576	1.6488
.2	6.8924	-1.0697	-.050126	1.0599	4.4843	2.6335	3.8974	.44843
.3	6.2790	-1.7150	-.14903	.82717	3.4938	2.3770	2.9731	-.52190
.4	5.8749	-2.1347	-.18557	.64974	2.6901	1.9954	2.4452	-1.0725
.5	5.5466	-2.2080	-.16939	.49936	2.0022	1.5251	2.0843	-1.1595
.6	5.1026	-1.9128	-.12187	.35876	1.3882	1.0320	1.6882	-.89950
.7	4.3629	-1.3461	-.067632	.22542	.84457	.58943	1.1766	-.50592
.8	3.2289	-.69832	-.025863	.10983	.40123	.25600	.61633	-.18153
.9	1.7255	-.19119	-.004636	.029302	.10525	.060437	.17058	-.025337
$\bar{\omega} = 3.20; \frac{1}{k} = 3.2895$								
.1	9.8137	-1.5231	0.33742	1.2562	6.3234	2.5323	6.2429	0.71830
.2	9.0203	-2.3515	.11551	.91064	4.7880	2.5605	4.8894	-.69260
.3	8.4748	-2.9450	-.048049	.66942	3.6089	2.4464	4.0679	-.1.5880
.4	8.0574	-3.1692	-.14151	.50222	2.6997	2.1691	3.5245	-1.8864
.5	7.5845	-2.9700	-.16847	.37835	1.9733	1.7523	3.0070	-1.6743
.6	6.8611	-2.3987	-.14553	.27408	1.3636	1.2567	2.3615	-1.1653
.7	5.7384	-1.6062	-.096670	.17770	.83951	.76374	1.5831	-.61260
.8	4.1622	-.80595	-.046017	.090780	.40909	.35416	.80240	-.21069
.9	2.1943	-.21645	-.011331	.025655	.11124	.089444	.21744	-.028722
$\bar{\omega} = 2.80; \frac{1}{k} = 3.7594$								
.1	13.345	-3.6449	0.92050	1.2152	7.3964	1.0627	8.1242	-1.4262
.2	12.650	-4.3960	.58100	.81040	5.3797	1.4705	6.9397	-2.7091
.3	12.104	-4.7232	.30252	.53250	3.8538	1.7067	6.1184	-3.2078
.4	11.522	-4.5656	.10150	.35282	2.7248	1.7322	5.3648	-3.0109
.5	10.707	-3.9540	-.018983	.23961	1.8894	1.5520	4.4735	-2.3450
.6	9.4871	-3.0118	-.068862	.16422	1.2551	1.2136	3.3835	-1.5011
.7	7.7616	-1.9327	-.067962	.10615	.75725	.79702	2.1844	-.74612
.8	5.5261	-.94202	-.041061	.056206	.36894	.39771	1.0746	-.24746
.9	2.8781	-.24875	-.012263	.016838	.10208	.10784	.28582	-.033045



TABLE II.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{10}{9}$  — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 2.50; \frac{1}{k} = 4.2105$								
.1	17.803	-6.1478	1.6400	1.3893	9.2515	-1.4042	10.974	-4.2120
.2	17.111	-6.6112	1.1742	.89385	6.5865	-4.8912	9.7956	-5.0084
.3	16.412	-6.5335	.77116	.54654	4.5591	.22715	8.7492	-4.9011
.4	15.506	-5.9268	.45082	.32036	3.0702	.68815	7.5762	-4.1207
.5	14.207	-4.8881	.22136	.18383	2.0049	.88048	6.1553	-2.9841
.6	12.380	-3.5870	.078818	.10591	1.2505	.83548	4.5210	-1.8157
.7	9.9694	-2.2391	.008598	.060674	.71387	.62366	2.8429	-87112
.8	7.0082	-1.0708	-0.111343	.030797	.33434	.34251	1.3707	-28219
.9	3.6204	-27962	-0.06226	.009409	.090690	.10053	.36004	-0.037174
$\bar{\omega} = 2.20; \frac{1}{k} = 4.7847$								
.1	25.031	-9.7220	2.6063	1.9036	13.151	-5.5983	16.193	-8.3890
.2	24.128	-9.6073	1.9822	1.2511	9.3576	-3.9009	14.661	-8.2045
.3	22.999	-8.8873	1.4226	.77310	6.4136	-2.4363	12.972	-7.1340
.4	21.453	-7.6509	.95046	.44483	4.2153	-1.2821	10.971	-5.5342
.5	19.341	-6.0542	.57911	.23594	2.6365	-4.7488	8.6576	-3.7823
.6	16.576	-4.3020	.31108	.11438	1.5444	-0.06320	6.1809	-2.2060
.7	13.151	-2.6216	.13850	.050261	.81625	.17589	3.7939	-1.0267
.8	9.1385	-1.2329	.044699	.019190	.35267	.16035	1.7964	-32579
.9	4.6867	-31879	.006982	.004801	.088970	.060500	.46666	-0.042410
$\bar{\omega} = 2.10; \frac{1}{k} = 5.0125$								
.1	28.372	-11.211	2.9785	2.1824	15.206	-7.4875	18.754	-10.167
.2	27.312	-10.822	2.2954	1.4574	10.869	-5.4514	16.955	-9.5160
.3	25.939	-9.8232	1.6773	.91726	7.4730	-3.6616	14.903	-8.0271
.4	24.073	-8.3280	1.1481	.53802	4.9127	-2.2035	12.487	-6.0903
.5	21.582	-6.5095	.72296	.28987	3.0586	-1.1230	9.7582	-4.0937
.6	18.398	-4.5812	.40651	.14080	1.7715	-4.2104	6.9039	-2.3581
.7	14.528	-2.7715	.19339	.059961	.91842	-0.053660	4.2060	-1.0875
.8	10.060	-1.2968	.069235	.021010	.38645	.061840	1.9806	-34296
.9	5.1476	-33430	.013032	.004595	.094590	.037220	.51275	-0.044481
$\bar{\omega} = 1.90; \frac{1}{k} = 5.5402$								
.1	37.101	-14.740	3.7856	2.9498	21.068	-12.175	25.703	-14.429
.2	35.516	-13.652	2.9770	2.0411	15.266	-9.3172	23.016	-12.591
.3	33.430	-11.979	2.2343	1.3409	10.633	-6.7363	19.897	-10.090
.4	30.694	-9.8773	1.5834	.82713	7.0630	-4.5361	16.351	-7.3630
.5	27.212	-7.5489	1.0426	.47132	4.4185	-2.7829	12.534	-4.8038
.6	22.955	-5.2191	.62113	.24192	2.5481	-1.4994	8.7161	-2.7051
.7	17.967	-3.1153	.31874	.10700	1.2982	-6.6246	5.2357	-1.2268
.8	12.358	-1.4440	.12637	.036978	.52865	-2.0616	2.4400	-38247
.9	6.2972	-37018	.027483	.007240	.12339	-0.028040	.62771	-0.049276



TABLE II.-- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{10}{9}$  - Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 1.68; \frac{1}{k} = 6.2657$								
.1	51.265	-19.663	4.7463	4.1976	31.535	-19.033	37.454	-20.444
.2	48.610	-17.531	3.7914	3.0121	23.268	-14.999	32.952	-16.829
.3	45.230	-14.899	2.9035	2.0674	16.524	-11.284	27.894	-12.888
.4	41.019	-11.964	2.1103	1.3433	11.192	-8.0150	22.435	-9.0754
.5	35.934	-8.9476	1.4334	.81339	7.1298	-5.2860	16.855	-5.7571
.6	29.988	-6.0804	.88684	.44747	4.1711	-3.1492	11.518	-3.1723
.7	23.262	-3.5820	.47644	.21337	2.1417	-1.6112	6.8222	-1.4156
.8	15.893	-1.6451	.19969	.079400	.87008	-6.3371	3.1469	-4.3637
.9	8.0656	-.41942	.046499	.016460	.19987	-.13525	.80455	-.055849
$\bar{\omega} = 1.50; \frac{1}{k} = 7.0176$								
.1	68.444	-24.750	5.5628	5.6249	45.116	-26.339	52.119	-26.697
.2	64.292	-21.493	4.4857	4.1371	33.779	-21.069	45.075	-21.168
.3	59.222	-17.862	3.4762	2.9229	24.377	-16.160	37.487	-15.726
.4	53.178	-14.077	2.5636	1.9640	16.797	-11.764	29.645	-10.806
.5	46.154	-10.366	1.7720	1.2361	10.890	-8.0012	21.936	-6.7216
.6	38.206	-6.9579	1.1192	.71039	6.4822	-4.9546	14.797	-3.6470
.7	29.441	-4.0603	.61595	.35562	3.3815	-2.6614	8.6745	-1.6086
.8	20.016	-1.8523	.26552	.13949	1.3914	-1.1135	3.9714	-.49188
.9	10.128	-.47037	.063850	.030560	.32190	-.25773	1.0108	-.062651
$\bar{\omega} = 1.40; \frac{1}{k} = 7.5188$								
.1	81.248	-28.107	6.0186	6.6163	55.610	-31.227	63.216	-30.832
.2	75.897	-24.094	4.8739	4.9228	41.950	-25.134	54.136	-24.017
.3	69.522	-19.804	3.7972	3.5248	30.526	-19.431	44.591	-17.584
.4	62.093	-15.461	2.8184	2.4047	21.224	-14.284	34.951	-11.938
.5	53.631	-11.298	1.9631	1.5397	13.892	-9.8324	25.659	-7.3538
.6	44.209	-7.5362	1.2510	.90207	8.3499	-6.1773	17.194	-3.9594
.7	33.951	-4.3768	.69561	.46126	4.3979	-3.3764	10.027	-1.7362
.8	23.025	-1.9900	.30340	.18513	1.8262	-1.4424	4.5731	-.52873
.9	11.632	-.50430	.073890	.041550	.42590	-.34266	1.1612	-.067185
$\bar{\omega} = 1.30; \frac{1}{k} = 8.0972$								
.1	97.323	-31.937	6.4702	7.7795	69.069	-36.840	77.270	-35.552
.2	90.404	-27.055	5.2589	5.8473	52.468	-29.805	65.527	-27.258
.3	82.357	-22.012	4.1160	4.2354	38.474	-23.191	53.475	-19.694
.4	73.177	-17.039	3.0719	2.9276	26.974	-17.185	41.560	-13.225
.5	62.911	-12.362	2.1537	1.9021	17.813	-11.943	30.285	-8.0739
.6	51.654	-8.1981	1.3829	1.1326	10.806	-7.5894	20.168	-4.3163
.7	39.542	-4.7402	.77566	.58951	5.7456	-4.2042	11.703	-1.8826
.8	26.754	-2.1484	.34164	.24118	2.4082	-1.8248	5.3188	-.57110
.9	13.497	-.54343	.084150	.055260	.56700	-.44136	1.3477	-.072397



TABLE II.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{10}{9}$  — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 1.10; \frac{1}{k} = 9.5694$								
.1	144.34	-41.468	7.3422	10.762	109.47	-50.872	118.81	-47.285
.2	132.61	-34.416	6.0032	8.2237	84.163	-41.484	98.894	-35.296
.3	119.55	-27.509	4.7332	6.0685	62.542	-32.599	79.324	-24.931
.4	105.21	-20.973	3.5640	4.2825	44.486	-24.448	60.703	-16.427
.5	89.684	-15.026	2.5247	2.8469	29.836	-17.235	43.645	-9.8731
.6	73.108	-9.8635	1.6407	1.7383	18.399	-11.137	28.743	-5.2127
.7	55.646	-5.6584	.93284	.92975	9.9504	-6.2904	16.533	-2.2519
.8	37.494	-2.5503	.41718	.39163	4.2437	-2.7920	7.4666	-6.7857
.9	18.867	-.64295	.10450	.092580	1.0156	-.69328	1.8847	-.085674
$\bar{\omega} = 1.00; \frac{1}{k} = 10.526$								
.1	179.47	-47.509	7.7531	12.685	140.20	-59.764	150.08	-54.706
.2	164.03	-39.085	6.3544	9.7577	108.34	-48.884	123.85	-40.381
.3	147.16	-31.002	5.0249	7.2537	80.961	-38.560	98.571	-28.250
.4	128.95	-23.483	3.7970	5.1608	57.939	-29.049	74.912	-18.463
.5	109.50	-16.732	2.7009	3.4614	39.114	-20.589	53.543	-11.023
.6	88.979	-10.935	1.7634	2.1340	24.289	-13.388	35.089	-5.7882
.7	67.555	-6.2516	1.0081	1.1533	13.233	-7.6149	20.105	-2.4901
.8	45.434	-2.8108	.45350	.49128	5.6861	-3.4076	9.0548	-.74816
.9	22.838	-.70759	.11436	.11738	1.3726	-.85340	2.2817	-.094298
$\bar{\omega} = 0.90; \frac{1}{k} = 11.696$								
.1	227.22	-54.754	8.1412	15.005	182.33	-70.399	192.72	-63.585
.2	206.65	-44.692	6.6862	11.607	141.53	-57.731	157.78	-46.473
.3	184.56	-35.209	5.3007	8.6832	106.29	-45.683	124.67	-32.236
.4	161.07	-26.512	4.0176	6.2207	76.471	-34.547	94.154	-20.916
.5	136.30	-18.798	2.8679	4.2038	51.923	-24.596	66.933	-12.412
.6	110.43	-12.236	1.8801	2.6129	32.441	-16.075	43.668	-6.4863
.7	83.652	-6.9738	1.0796	1.4246	17.789	-9.1984	24.934	-2.7801
.8	56.167	-3.1286	.48814	.61249	7.6963	-4.1438	11.201	-.83306
.9	28.204	-.78655	.12378	.14791	1.8698	-1.0458	2.8184	-.10486
$\bar{\omega} = 0.84; \frac{1}{k} = 12.531$								
.1	264.52	-59.849	8.3612	16.638	215.43	-77.854	226.11	-69.818
.2	239.91	-48.643	6.8745	12.909	167.63	-63.930	184.29	-50.757
.3	213.72	-38.178	5.4573	9.6893	126.22	-50.672	145.05	-35.046
.4	186.10	-28.656	4.1429	6.9666	91.074	-38.396	109.16	-22.650
.5	157.18	-20.263	2.9629	4.7265	62.030	-27.399	77.366	-13.397
.6	127.14	-13.161	1.9466	2.9503	38.885	-17.954	50.351	-6.9819
.7	96.188	-7.4882	1.1205	1.6158	21.396	-10.304	28.694	-2.9866
.8	64.525	-3.3553	.50806	.69812	9.2908	-4.6572	12.873	-.89359
.9	32.383	-.84294	.12923	.16935	2.2670	-1.1795	3.2363	-.11230



TABLE II.—VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{10}{9}$  — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 0.80; \frac{1}{k} = 13.158$								
.1	294.23	-63.634	8.5020	17.850	241.87	-83.377	252.73	-74.440
.2	266.38	-51.581	6.9950	13.876	188.49	-68.521	205.41	-53.938
.3	236.93	-40.389	5.5575	10.436	142.16	-54.366	161.26	-37.135
.4	206.01	-30.255	4.2232	7.5199	102.76	-41.245	121.09	-23.941
.5	173.79	-21.357	3.0238	5.1142	70.122	-29.474	85.665	-14.131
.6	140.44	-13.853	1.9892	3.2005	44.047	-19.346	55.666	-7.3529
.7	106.16	-7.8733	1.1468	1.7577	24.290	-11.123	31.685	-3.1409
.8	71.172	-3.5252	.52081	.76163	10.571	-5.0375	14.202	-0.93902
.9	35.707	-.88522	.13265	.18529	2.5863	-1.2798	3.5686	-.11801
$\bar{\omega} = 0.70; \frac{1}{k} = 15.038$								
.1	392.26	-74.831	8.8311	21.430	329.40	-99.651	340.69	-88.089
.2	353.67	-60.289	7.2766	16.727	257.57	-82.045	275.11	-63.351
.3	313.40	-46.957	5.7919	12.637	194.98	-65.242	214.73	-43.330
.4	271.61	-35.014	4.4109	9.1507	141.49	-49.628	160.43	-27.780
.5	228.48	-24.622	3.1662	6.2563	96.971	-35.576	113.00	-16.321
.6	184.20	-15.920	2.0889	3.9377	61.192	-23.435	73.169	-8.4596
.7	138.98	-9.0262	1.2081	2.1759	33.908	-13.530	41.533	-3.6029
.8	93.058	-4.0344	.55069	.94899	14.833	-6.1554	18.579	-1.0750
.9	46.650	-1.0120	.14078	.23260	3.6459	-1.5724	4.6629	-.13491
$\bar{\omega} = 0.60; \frac{1}{k} = 17.544$								
.1	543.60	-89.479	9.1254	26.090	464.98	-120.79	476.66	-105.89
.2	488.33	-71.716	7.5286	20.433	364.62	-99.602	382.72	-75.665
.3	431.30	-55.602	6.0018	15.494	276.87	-79.348	297.21	-51.466
.4	372.72	-41.296	4.5793	11.266	201.61	-60.490	221.07	-32.837
.5	312.76	-28.943	3.2942	7.7362	138.67	-43.471	155.13	-19.214
.6	251.63	-18.663	2.1788	4.8921	87.848	-28.718	100.14	-9.9268
.7	189.56	-10.559	1.2637	2.7168	48.880	-16.633	56.706	-4.2174
.8	126.78	-4.7125	.57790	1.1913	21.474	-7.5932	25.323	-1.2561
.9	63.510	-1.1811	.14845	.29364	5.3020	-1.9436	6.3490	-.15758
$\bar{\omega} = 0.56; \frac{1}{k} = 18.797$								
.1	628.09	-96.715	9.2319	28.381	540.79	-131.20	552.60	-114.67
.2	563.47	-77.371	7.6198	22.254	424.50	-108.24	442.78	-81.755
.3	497.08	-59.889	6.0778	16.897	322.69	-86.284	343.24	-55.492
.4	429.11	-44.418	4.6400	12.303	235.25	-65.829	254.90	-35.346
.5	359.76	-31.093	3.3404	8.4614	162.02	-47.352	178.64	-20.653
.6	289.24	-20.030	2.2110	5.3594	102.78	-31.317	115.18	-10.657
.7	217.77	-11.324	1.2834	2.9817	57.265	-18.163	65.168	-4.5238
.8	145.58	-5.0512	.58769	1.3096	25.201	-8.2995	29.084	-1.3460
.9	72.913	-1.2656	.15100	.32336	6.2330	-2.1304	7.2893	-.16870

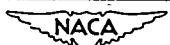


TABLE II.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{10}{9}$  — Concluded

$x_1$	$I_5$	$I_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 0.52; \frac{1}{k} = 20.243$								
.1	732.85	-105.01	9.3325	30.999	634.87	-143.08	646.81	-124.71
.2	656.64	-83.860	7.7060	24.334	498.80	-118.09	517.28	-88.723
.3	578.63	-64.813	6.1496	18.498	379.56	-94.196	400.30	-60.116
.4	499.03	-48.007	4.6978	13.486	277.01	-71.913	296.84	-38.231
.5	418.03	-33.569	3.3842	9.2879	191.00	-51.771	207.77	-22.309
.6	335.86	-21.605	2.2419	5.8918	121.31	-31.269	133.83	-11.501
.7	252.74	-12.206	1.3026	3.2830	67.688	-19.894	75.658	-4.8765
.8	168.89	-5.4420	.59682	1.4447	29.824	-9.1067	33.746	-1.4512
.9	84.568	-1.3630	.15363	.35734	7.3880	-2.3375	8.4548	-18155
$\bar{\omega} = 0.36; \frac{1}{k} = 29.240$								
.1	1559.7	-155.75	9.6660	46.882	1378.3	-215.27	1390.7	-185.98
.2	1391.8	-123.69	7.9918	36.929	1086.1	-177.95	1105.2	-131.42
.3	1221.9	-95.127	6.3878	28.179	829.17	-142.20	850.56	-88.530
.4	1050.5	-70.162	4.8889	20.628	607.28	-108.80	627.70	-56.009
.5	877.61	-48.885	3.5296	14.270	420.30	-78.529	437.55	-32.541
.6	703.54	-31.371	2.3441	9.0948	268.03	-52.134	280.90	-16.716
.7	528.50	-17.683	1.3660	5.0931	150.19	-30.359	158.38	-7.0716
.8	352.74	-7.8709	.62751	2.2531	66.478	-13.958	70.514	-2.0987
.9	176.49	-1.9695	.16201	.56070	16.544	-3.6017	17.647	-2.6239
$\bar{\omega} = 0.26; \frac{1}{k} = 40.486$								
.1	3016.6	-218.17	9.8161	66.238	2689.3	-303.41	2701.8	-261.16
.2	2686.9	-172.84	8.1203	52.253	2121.9	-250.98	2141.3	-184.01
.3	2355.2	-132.64	6.4950	39.937	1622.1	-200.72	1643.8	-123.59
.4	2021.9	-97.650	4.9753	29.287	1189.8	-153.71	1210.5	-78.025
.5	1687.1	-67.929	3.5951	20.297	824.84	-111.07	842.30	-45.248
.6	1351.2	-43.535	2.3900	12.963	526.91	-73.835	539.94	-23.219
.7	1014.2	-24.516	1.3939	7.2749	295.79	-43.082	304.10	-9.8037
.8	676.55	-10.904	.64223	3.2253	131.19	-19.793	135.28	-2.9049
.9	338.39	-2.7274	.16635	.80430	32.720	-5.1017	33.837	-3.36463
$\bar{\omega} = 0.16; \frac{1}{k} = 65.790$								
.1	8013.7	-357.33	9.9179	109.12	7186.4	-499.06	7199.1	-428.42
.2	7128.8	-282.62	8.2079	86.165	5675.2	-412.98	5694.7	-301.23
.3	6241.9	-216.57	6.5680	65.927	4342.6	-330.46	4364.5	-201.98
.4	5353.3	-159.24	5.0330	48.402	3188.5	-253.28	3209.4	-127.44
.5	4463.3	-110.65	3.6395	33.587	2212.8	-183.13	2230.4	-73.757
.6	3572.1	-70.855	2.4227	21.478	1415.2	-121.75	1428.3	-37.768
.7	2679.9	-39.873	1.4126	12.071	795.48	-71.198	803.82	-15.964
.8	1787.0	-17.726	.65057	5.3598	353.28	-32.805	357.37	-4.7413
.9	893.54	-4.4324	.16842	1.3387	88.250	-8.4845	89.362	-5.58027
$\bar{\omega} = 0.10; \frac{1}{k} = 105.26$								
.1	20561	-573.40	9.9574	175.48	18479	-801.95	18491	-687.99
.2	18282	-453.23	8.2418	138.62	14597	-663.71	14617	-483.37
.3	16001	-347.13	6.5963	106.10	11174	-531.18	11196	-323.91
.4	13718	-255.11	5.0566	77.931	8207.3	-407.14	8228.3	-204.23
.5	11434	-177.20	3.6576	54.103	5698.0	-294.43	5715.8	-118.17
.6	9148.7	-113.43	2.4355	34.615	3645.7	-195.78	3659.0	-60.526
.7	6862.4	-63.817	1.4216	19.464	2050.1	-114.42	2058.5	-25.539
.8	4575.3	-28.366	.65586	8.6477	910.91	-52.612	915.03	-7.5855
.9	2287.8	-7.0921	.17144	2.1612	227.64	-13.450	228.77	-9.4017



TABLE III.- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{4}$ 

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 20.00; \frac{1}{k} = 0.27778$								
.1	0.054725	0.17648	0.002079	0.19498	0.046898	0.25169	0.047289	0.21499
.2	.049054	.13802	.003904	.15506	.036784	.20857	.037616	.14954
.3	.043247	.10499	.005402	.11923	.028034	.16717	.028934	.099925
.4	.037985	.076053	.005200	.087361	.020495	.12839	.022074	.062200
.5	.031738	.052088	.004817	.060317	.014218	.092997	.015212	.035799
.6	.026232	.032808	.003665	.038191	.009110	.062007	.010272	.018332
.7	.019550	.017340	.002494	.021086	.005125	.036241	.005567	.007466
.8	.013314	.007272	.001244	.009214	.002294	.016715	.002503	.002342
.9	.007238	-.000107	.000368	.002129	.000549	.004323	.000600	.000048
$\bar{\omega} = 10.00; \frac{1}{k} = 0.55556$								
.1	0.23289	0.33251	-0.057872	0.34825	0.19649	0.48913	0.20341	0.41257
.2	.20985	.26246	-.047261	.28112	.15539	.40498	.16436	.29331
.3	.18132	.19850	-.035240	.21777	.11797	.32363	.12159	.19733
.4	.15640	.13872	-.026325	.16084	.085427	.24849	.089077	.11946
.5	.13488	.092885	-.018638	.11333	.058921	.18019	.065441	.068773
.6	.10651	.058178	-.010883	.073247	.037310	.11973	.040044	.037469
.7	.077106	.023920	-.005704	.040263	.020182	.069965	.019340	.013479
.8	.057906	-.000858	-.003278	.017305	.008549	.032691	.009595	.000770
.9	.036738	-.003972	-.001186	.004447	.002155	.008656	.003463	-.000484
$\bar{\omega} = 5.00; \frac{1}{k} = 1.1111$								
.1	0.97380	0.60025	-0.052514	0.61126	0.84746	0.95102	0.84744	0.82871
.2	.85207	.46542	-.058710	.49292	.67760	.79816	.64070	.59950
.3	.72708	.32794	-.052943	.39266	.53095	.64204	.45312	.39335
.4	.61685	.19136	-.037610	.30251	.40092	.48809	.30944	.21566
.5	.53119	.072955	-.019414	.21854	.28441	.34531	.21481	.084930
.6	.46324	-.006860	-.005231	.14229	.18300	.22264	.15351	.012322
.7	.39179	-.038624	-.001595	.078929	.10121	.12583	.10377	-.010694
.8	.29390	-.031773	-.002298	.033487	.043223	.056612	.055400	-.007738
.9	.15976	-.010567	-.000728	.007792	.010202	.014554	.015736	-.001384
$\bar{\omega} = 4.40; \frac{1}{k} = 1.2626$								
.1	1.2355	0.66705	-0.095506	0.67241	1.0861	1.1324	1.0415	0.97089
.2	1.0740	.48938	-.10394	.53999	.86736	.95907	.76688	.66893
.3	.92874	.31190	-.099039	.43049	.68089	.78073	.54857	.40259
.4	.81113	.15115	-.081406	.33535	.51856	.60184	.39519	.19316
.5	.71822	.028529	-.056472	.24849	.37474	.43144	.29269	.057476
.6	.63237	-.041059	-.031705	.16853	.24842	.28041	.21551	-.006088
.7	.52903	-.058027	-.013183	.098684	.14296	.15805	.14366	-.018745
.8	.38880	-.039526	-.003227	.044544	.063878	.069864	.074247	-.009875
.9	.20768	-.012249	-.000142	.011008	.015748	.017376	.020526	-.001611



TABLE III.- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{4}$  - Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 3.30; \frac{1}{k} = 1.6835$								
.1	2.1252	0.63836	-0.042563	0.64910	1.6172	1.4847	1.5940	1.0873
.2	1.9227	.35829	-.082462	.49157	1.2537	1.2878	1.2490	.61047
.3	1.7538	.12938	-.10674	.37015	.95450	1.0812	.99527	.26609
.4	1.6022	-.031498	-.11244	.27638	.70895	.86640	.79803	.055730
.5	1.4438	-.11810	-.10092	.20165	.50615	.65030	.62417	-.040751
.6	1.2540	-.13755	-.077282	.13923	.33778	.44457	.45403	-.059244
.7	1.0142	-.10921	-.048826	.085820	.19999	.26359	.28709	-.039992
.8	.71788	-.059907	-.023068	.041965	.093896	.12180	.13986	-.015454
.9	.37295	-.016820	-.005832	.011479	.024753	.031244	.037050	-.002226
$\bar{\omega} = 2.80; \frac{1}{k} = 1.9841$								
.1	3.0417	0.43884	0.18275	0.67915	2.0992	1.4323	2.2147	0.90558
.2	2.8173	.14598	.090903	.49068	1.5929	1.2633	1.8328	.40641
.3	2.6079	-.063609	.031942	.34744	1.1801	1.0815	1.5187	.090576
.4	2.3888	-.18532	-.014157	.24154	.84878	.88627	1.2342	-.069096
.5	2.1349	-.22613	-.038271	.16409	.58581	.68232	.95561	-.11521
.6	1.8259	-.20373	-.043099	.10680	.37885	.47984	.67860	-.095913
.7	1.4510	-.14354	-.034292	.063385	.21881	.29340	.41732	-.054174
.8	1.0113	-.073791	-.019248	.030581	.10119	.14008	.19847	-.019228
.9	.51995	-.020033	-.005640	.008441	.026568	.037157	.051748	-.002657
$\bar{\omega} = 2.60; \frac{1}{k} = 2.1368$								
.1	3.6153	0.30173	0.32353	0.73706	2.4340	1.3217	2.6353	0.75707
.2	3.3689	.019317	.21559	.52632	1.8357	1.1781	2.2162	.27544
.3	3.1239	-.16897	.12447	.36536	1.3475	1.0202	1.8489	-.008577
.4	2.8546	-.26467	.055340	.24660	.95710	.84636	1.4994	-.13445
.5	2.5375	-.28000	.010055	.16122	.65032	.66008	1.1515	-.15250
.6	2.1554	-.23626	-.012964	.10054	.41325	.47054	.80882	-.11391
.7	1.7011	-.16043	-.018346	.057314	.23448	.29182	.49204	-.061124
.8	1.1788	-.080700	-.012877	.026797	.10672	.14138	.23194	-.021102
.9	.60380	-.021654	-.004292	.007254	.027670	.038077	.060132	-.002874
$\bar{\omega} = 2.40; \frac{1}{k} = 2.3148$								
.1	4.3780	0.12257	0.49333	0.83892	2.9161	1.1400	3.2199	0.55260
.2	4.0935	-.13711	.35735	.59733	2.1923	1.0329	2.7362	.10944
.3	3.7933	-.29429	.23851	.41076	1.5996	.90981	2.2865	-.12801
.4	3.4524	-.35679	.14254	.27199	1.1253	.76781	1.8441	-.21072
.5	3.0499	-.34173	.072222	.17238	.75443	.60913	1.4026	-.19526
.6	2.5725	-.27338	.027161	.10302	.47137	.44167	.97418	-.13441
.7	2.0167	-.17976	.003915	.055891	.26235	.27860	.58645	-.069060
.8	1.3900	-.088671	-.003376	.024877	.11705	.13728	.27415	-.023257
.9	.70948	-.023539	-.002085	.006462	.029785	.037611	.070700	-.003126



TABLE III.- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{4}$  - Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 2.20; \frac{1}{k} = 2.5253$								
.1	5.4074	-0.10630	0.68988	0.99928	3.6187	0.87225	4.0400	0.28213
.2	5.0590	-.32847	.52252	.71577	2.7209	.81490	3.4482	-.097413
.3	4.6749	-.44316	.37258	.49339	1.9813	.73961	2.8729	-.27115
.4	4.2322	-.46422	.24633	.32535	1.3868	.64207	2.2985	-.29992
.5	3.7137	-.41305	.14750	.20328	.92149	.52297	1.7295	-.24464
.6	3.1104	-.31621	.076864	.11821	.56829	.38861	1.1880	-.15800
.7	2.4228	-.20219	.032329	.061535	.31100	.25082	.70802	-.078238
.8	1.6614	-.097991	.009229	.025996	.13603	.12630	.32841	-.025773
.9	.84528	-.025760	.000997	.006383	.033890	.035320	.084280	-.003423
$\bar{\omega} = 2.00; \frac{1}{k} = 2.7778$								
.1	6.8204	-0.39443	0.90918	1.2353	4.6516	0.50086	5.2031	-0.066473
.2	6.3683	-.56155	.70769	.89577	3.5089	.50934	4.4353	-.35251
.3	5.8580	-.62049	.52388	.62460	2.5599	.49750	3.6711	-.44258
.4	5.2702	-.59050	.36455	.41548	1.7914	.45955	2.9083	-.40489
.5	4.5922	-.49645	.23428	.26042	1.1865	.39434	2.1641	-.30227
.6	3.8197	-.36635	.13510	.15057	.72667	.30625	1.4704	-.18555
.7	2.9573	-.22860	.066319	.076978	.39327	.20529	.86811	-.089021
.8	2.0184	-.10906	.024707	.031479	.16942	.10687	.39978	-.028757
.9	1.0238	-.028417	.004904	.007380	.041430	.030779	.10213	-.003779
$\bar{\omega} = 1.96; \frac{1}{k} = 2.8345$								
.1	7.1635	-0.46020	0.95530	1.2934	4.9113	0.41239	5.4901	-0.14686
.2	6.6842	-.61393	.74672	.94060	3.7084	.43623	4.6761	-.41015
.3	6.1420	-.65994	.55587	.65781	2.7076	.43924	3.8640	-.48079
.4	5.5183	-.61843	.38965	.43879	1.8956	.41528	3.0547	-.42811
.5	4.8016	-.51486	.25282	.27565	1.2556	.36281	2.2679	-.31498
.6	3.9884	-.37744	.14764	.15954	.76850	.28577	1.5376	-.19163
.7	3.0843	-.23447	.073708	.081509	.41536	.19375	.90617	-.091411
.8	2.1032	-.11153	.028113	.033229	.17853	.10182	.41674	-.029421
.9	1.0662	-.029013	.005776	.007745	.043530	.029543	.10638	-.003858
$\bar{\omega} = 1.84; \frac{1}{k} = 3.0193$								
.1	8.3471	-0.67591	1.0972	1.4926	5.8276	0.11516	6.4899	-0.41195
.2	7.7692	-.78423	.86701	1.0955	4.4148	.19007	5.5086	-.59800
.3	7.1138	-.78743	.65466	.77356	3.2331	.24246	4.5269	-.60439
.4	6.3652	-.70846	.46737	.52097	2.2688	.26511	3.5554	-.50289
.5	5.5150	-.57420	.31041	.33009	1.5045	.25524	2.6220	-.35588
.6	4.5628	-.41324	.18675	.19227	.92052	.21537	1.7667	-.21123
.7	3.5165	-.25346	.096882	.098467	.49634	.15370	1.0357	-.099141
.8	2.3917	-.11956	.038870	.040010	.21238	.084032	.47442	-.031582
.9	1.2105	-.030953	.008554	.009222	.051410	.025190	.12080	-.004118

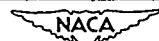


TABLE III.- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{4}$  - Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 1.66; \frac{1}{k} = 3.3467$								
.1	10.680	-1.0584	1.3174	1.8728	7.7013	-0.43109	8.4926	-0.88559
.2	9.8921	-1.0821	1.0540	1.3938	5.8689	-.26378	7.1553	-.92769
.3	9.0044	-1.0087	.80867	.99930	4.3230	-.12195	5.8255	-.81891
.4	8.0059	-.86414	.58903	.68378	3.0497	-.014646	4.5294	-.63200
.5	6.8933	-.67688	.40105	.44017	2.0312	.053212	3.3074	-.42648
.6	5.6706	-.47545	.24874	.26017	1.2463	.081742	2.2088	-.24520
.7	4.3492	-.28666	.13394	.13484	.67247	.076612	1.2853	-.11263
.8	2.9473	-.13369	.056260	.055194	.28715	.049219	.58553	-.035378
.9	1.4884	-.034383	.013107	.012731	.069140	.016437	.14859	-.004575
$\bar{\omega} = 1.56; \frac{1}{k} = 3.5613$								
.1	12.367	-1.3070	1.4415	2.1342	9.0954	-0.79482	9.9591	-1.1948
.2	11.420	-1.2739	1.1596	1.6003	6.9558	-.56662	8.3497	-1.1403
.3	10.359	-1.1504	.89590	1.1567	5.1422	-.36580	6.7604	-.95626
.4	9.1776	-.96377	.65816	.79847	3.6407	-.20258	5.2269	-.71445
.5	7.8755	-.74273	.45277	.51871	2.4328	-.083212	3.7966	-.47164
.6	6.4590	-.51552	.28431	.30939	1.4969	-.009131	2.5236	-.26702
.7	4.9416	-.30817	.15536	.16174	.80940	.023702	1.4629	-.12134
.8	3.3425	-.14289	.066392	.066702	.34602	.025030	.66455	-.037846
.9	1.6860	-.036627	.015786	.015466	.083340	.010275	.16835	-.004876
$\bar{\omega} = 1.48; \frac{1}{k} = 3.7538$								
.1	13.987	-1.5278	1.5409	2.3739	10.454	-1.1216	11.375	-1.4699
.2	12.880	-1.4436	1.2443	1.7900	8.0177	-.83895	9.4968	-1.3283
.3	11.651	-1.2755	.96587	1.3020	5.9450	-.58536	7.6548	-1.0774
.4	10.293	-1.0517	.71371	.90482	4.2217	-.37209	5.8922	-.78712
.5	8.8098	-.80098	.49442	.59198	2.8293	-.20659	4.2623	-.51150
.6	7.2085	-.55108	.31304	.35568	1.7455	-.091596	2.8230	-.28636
.7	5.5045	-.32733	.17273	.18728	.94598	-.024537	1.6317	-.12911
.8	3.7179	-.15112	.074649	.077751	.40510	.002874	.73964	-.040057
.9	1.8738	-.038639	.017989	.018137	.097650	.004603	.18713	-.005144
$\bar{\omega} = 1.34; \frac{1}{k} = 4.1459$								
.1	17.586	-1.9699	1.7130	2.8702	13.524	-1.7825	14.545	-2.0210
.2	16.116	-1.7820	1.3910	2.1841	10.424	-1.3900	12.050	-1.7030
.3	14.506	-1.5249	1.0873	1.6047	7.7697	-1.0302	9.6363	-1.3183
.4	12.754	-1.2273	.81033	1.1275	5.5473	-.71608	7.3618	-.93179
.5	10.868	-.91760	.56707	.74626	3.7378	-.45750	5.2890	-.59112
.6	8.8584	-.62258	.36332	.45384	2.3181	-.25982	3.4823	-.32515
.7	6.7431	-.36605	.20324	.24193	1.2624	-.12332	2.0032	-.14475
.8	4.5440	-.16782	.089228	.10167	.54287	-.042800	.90484	-.044532
.9	2.2868	-.042733	.021893	.023992	.13129	-.007241	.22843	-.005692

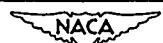


TABLE III. - VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{4}$  - Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 1.24; \frac{1}{k} = 4.4803$								
.1	20.966	-2.3381	1.8330	3.2967	16.450	-2.3365	17.541	-2.4799
.2	19.146	-2.0633	1.4934	2.5235	12.722	-1.8523	14.450	-2.0140
.3	17.173	-1.7322	1.1723	1.8661	9.5174	-1.4035	11.492	-1.5181
.4	15.050	-1.3736	.87800	1.3203	6.8211	-1.0051	8.7346	-1.0520
.5	12.786	-1.0152	.61807	.88052	4.6140	-.66866	6.2464	-.65756
.6	10.395	-.68271	.39872	.53975	2.8727	-.40172	4.0966	-.35770
.7	7.8964	-.39878	.22481	.29010	1.5704	-.20695	2.3491	-.15797
.8	5.3131	-.18199	.099587	.12293	.67774	-.081622	1.0586	-.048329
.9	2.6714	-.046220	.024674	.029244	.16445	-.017333	.26689	-.006156
$\bar{\omega} = 1.10; \frac{1}{k} = 5.0505$								
.1	27.383	-2.9485	1.9945	4.0227	22.070	-3.2568	23.254	-3.2393
.2	24.883	-2.5297	1.6313	3.1016	17.145	-2.6201	19.007	-2.5280
.3	22.214	-2.0766	1.2868	2.3121	12.887	-2.0238	15.006	-1.8488
.4	19.383	-1.6175	.96938	1.6502	9.2830	-1.4855	11.328	-1.2518
.5	16.403	-1.1786	.68708	1.1108	6.3125	-1.0199	8.0528	-.76850
.6	13.291	-.78393	.44676	.68770	3.9514	-.63811	5.2546	-.41237
.7	10.070	-.45414	.25417	.37346	2.1717	-.34650	3.0010	-.18028
.8	6.7622	-.20608	.11374	.15996	.94226	-.14658	1.3485	-.054771
.9	3.3960	-.052161	.028511	.038470	.22981	-.034298	.33935	-.006949
$\bar{\omega} = 1.06; \frac{1}{k} = 5.2411$								
.1	29.708	-3.1481	2.0388	4.2638	24.121	-3.5574	25.330	-3.4871
.2	26.959	-2.6822	1.6692	3.2938	18.760	-2.8708	20.660	-2.6958
.3	24.036	-2.1895	1.3182	2.4604	14.119	-2.2262	16.278	-1.9670
.4	20.948	-1.6977	.99454	1.7599	10.185	-1.6422	12.266	-1.3173
.5	17.709	-1.2325	.70611	1.1876	6.9355	-1.1346	8.7052	-.80504
.6	14.337	-.81745	.46004	.73711	4.3479	-.71527	5.6727	-.43046
.7	10.854	-.47254	.26230	.40138	2.3933	-.39211	3.2363	-.18770
.8	7.2853	-.21411	.11768	.17240	1.0399	-.16781	1.4531	-.056920
.9	3.6575	-.054145	.029583	.041580	.25400	-.039813	.36550	-.007812
$\bar{\omega} = 0.98; \frac{1}{k} = 5.6689$								
.1	35.255	-3.5886	2.1246	4.8015	29.031	-4.2198	30.290	-4.0332
.2	31.907	-3.0195	1.7426	3.7221	22.630	-3.4232	24.601	-3.0660
.3	28.376	-2.4396	1.3792	2.7910	17.074	-2.6723	19.308	-2.1961
.4	24.674	-1.8757	1.0432	2.0048	12.348	-1.9876	14.498	-1.4625
.5	20.817	-1.3525	.74301	1.3589	8.4323	-1.3871	10.258	-.88623
.6	16.825	-.89227	.48580	.84749	5.3014	-.88534	6.6678	-.47073
.7	12.721	-.51371	.27811	.46380	2.9267	-.49258	3.7963	-.20425
.8	8.5299	-.23210	.12533	.20026	1.2756	-.21471	1.7020	-.061735
.9	4.2799	-.058597	.031661	.048560	.31247	-.052118	.42774	-.007805



TABLE III.- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{4}$  - Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 0.94; \frac{1}{k} = 5.9102$								
.1	38.581	-3.8331	2.1660	5.1024	31.986	-4.5864	33.268	-4.3355
.2	34.672	-3.2070	1.7780	3.9618	24.961	-3.7288	26.966	-3.2713
.3	30.976	-2.5788	1.4086	2.9760	18.854	-2.9190	21.124	-2.3290
.4	26.905	-1.9751	1.0668	2.1418	13.652	-2.1786	15.836	-1.5435
.5	22.678	-1.4197	.76083	1.4548	9.3351	-1.5267	11.188	-.93159
.6	18.315	-.93422	.49825	.90929	5.8771	-.97931	7.2633	-.19332
.7	13.838	-.53684	.28576	.49879	3.2492	-.54817	4.1315	-.21357
.8	9.2748	-.24223	.12904	.21588	1.4182	-.24060	1.8510	-.064442
.9	4.6523	-.061107	.032658	.052500	.34796	-.058986	.46498	-.008146
$\bar{\omega} = 0.88; \frac{1}{k} = 6.3131$								
.1	44.455	-4.2356	2.2258	5.6009	37.216	-5.1882	38.533	-4.8326
.2	40.105	-3.5160	1.8292	4.3588	29.086	-4.2304	31.141	-3.6092
.3	35.562	-2.8088	1.4512	3.2824	22.007	-3.3237	24.330	-2.5481
.4	30.841	-2.1395	1.1009	2.3688	15.964	-2.4917	18.195	-1.6772
.5	25.960	-1.5311	.78666	1.6136	10.936	-1.7556	12.829	-1.0068
.6	20.941	-1.0040	.51632	1.0117	6.8987	-1.1333	8.3137	-.53084
.7	15.808	-.57538	.29687	.55679	3.8218	-.63915	4.7225	-.22905
.8	10.588	-.25913	.13444	.24184	1.6717	-.28307	2.1137	-.068958
.9	5.3091	-.065297	.034140	.059020	.41103	-.070069	.53066	-.008701
$\bar{\omega} = 0.82; \frac{1}{k} = 6.7751$								
.1	51.675	-4.6892	2.2829	6.1666	43.660	-5.8636	45.010	-5.3915
.2	46.534	-3.8649	1.8780	4.8091	34.172	-4.7930	36.274	-3.9899
.3	41.195	-3.0691	1.4918	3.6299	25.895	-3.7774	28.268	-2.7956
.4	35.673	-2.3261	1.1334	2.6261	18.816	-2.8426	21.092	-1.8287
.5	29.989	-1.6579	.81135	1.7937	12.913	-2.0118	14.842	-1.0922
.6	24.165	-1.0835	.53359	1.1278	8.1606	-1.3057	9.6031	-.57356
.7	18.227	-.61943	.30751	.62259	4.5297	-.74092	5.4479	-.24675
.8	12.201	-.27848	.13962	.27128	1.9853	-.33047	2.4361	-.074121
.9	6.1152	-.070100	.035565	.066430	.48900	-.082370	.61127	-.009339
$\bar{\omega} = 0.78; \frac{1}{k} = 7.1225$								
.1	57.447	-5.0256	2.3192	6.5881	48.821	-6.3627	50.191	-5.8052
.2	51.672	-4.1241	1.9091	5.1445	38.246	-5.2086	40.378	-4.2723
.3	45.695	-3.2629	1.5177	3.8886	29.011	-4.1125	31.415	-2.9796
.4	39.533	-2.4654	1.1542	2.8176	21.102	-3.1017	23.407	-1.9415
.5	33.206	-1.7526	.82708	1.9277	14.498	-2.2010	16.451	-1.1559
.6	26.740	-1.1431	.54461	1.2142	9.1732	-1.4329	10.633	-.60554
.7	20.158	-.65248	.31429	.67154	5.0981	-.81609	6.0273	-.26003
.8	13.488	-.29302	.14291	.29316	2.2374	-.36556	2.6936	-.078018
.9	6.7590	-.073710	.036462	.071910	.55200	-.091600	.67565	-.009826



TABLE III.- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{4}$  - Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 0.74; \frac{1}{k} = 7.5075$								
.1	64.185	-5.3942	2.3542	7.0516	54.852	-6.9076	56.243	-6.2577
.2	57.668	-4.4086	1.9390	5.5132	43.008	-5.6622	45.168	-4.5817
.3	50.946	-3.4759	1.5427	4.1729	32.653	-4.4780	35.088	-3.1816
.4	44.036	-2.6187	1.1741	3.0279	23.775	-3.3840	26.108	-2.0658
.5	36.960	-1.8571	.84225	2.0748	16.351	-2.4070	18.327	-1.2262
.6	29.743	-1.2090	.55525	1.3091	10.358	-1.5712	11.834	-.64091
.7	22.411	-.68904	.32086	.72528	5.7633	-.89767	6.7031	-.27472
.8	14.990	-.30911	.14613	.31723	2.5323	-.40347	2.9940	-.082307
.9	7.5100	-.077710	.037340	.077990	.62550	-.10163	.75075	-.010368
$\bar{\omega} = 0.70; \frac{1}{k} = 7.9365$								
.1	72.115	-5.8003	2.3877	7.5640	61.959	-7.5062	63.368	-6.7556
.2	64.724	-4.7226	1.9677	5.9206	48.619	-6.1603	50.807	-4.9225
.3	57.123	-3.7115	1.5665	4.4869	36.946	-4.8793	39.409	-3.4046
.4	49.333	-2.7885	1.1933	3.2602	26.926	-3.6940	29.285	-2.2031
.5	41.376	-1.9731	.85675	2.2373	18.537	-2.6332	20.535	-1.3041
.6	33.277	-1.2821	.56541	1.4138	11.755	-1.7232	13.247	-.68009
.7	25.061	-.72971	.32711	.78459	6.5482	-.98749	7.4981	-.29101
.8	16.757	-.32703	.14914	.34376	2.8806	-.44560	3.3474	-.087081
.9	8.3934	-.082167	.038165	.084650	.71250	-.11267	.83909	-.010952
$\bar{\omega} = 0.66; \frac{1}{k} = 8.4175$								
.1	81.535	-6.2507	2.4197	8.1338	70.407	-8.1671	71.835	-7.3066
.2	73.104	-5.0714	1.9951	6.3735	55.291	-6.7100	57.505	-5.3009
.3	64.460	-3.9735	1.5893	4.8358	42.051	-5.3218	44.542	-3.6524
.4	55.624	-2.9777	1.2116	3.5182	30.674	-4.0354	33.058	-2.3560
.5	46.619	-2.1025	.87068	2.4176	21.138	-2.8820	23.156	-1.3911
.6	37.472	-1.3639	.57519	1.5300	13.418	-1.8902	14.925	-.72392
.7	28.207	-.77522	.33316	.85040	7.4824	-1.0858	8.4421	-.30925
.8	18.855	-.34711	.15213	.37320	3.2953	-.49097	3.7669	-.092445
.9	9.4423	-.087163	.039001	.092080	.81590	-.12440	.94397	-.011624
$\bar{\omega} = 0.60; \frac{1}{k} = 9.2593$								
.1	99.364	-7.0283	2.4645	9.1207	86.411	-9.3033	87.865	-8.2558
.2	88.960	-5.6749	2.0336	7.1575	67.931	-7.6546	70.182	-5.9538
.3	78.339	-4.4280	1.6214	5.4393	51.724	-6.0819	54.254	-4.0814
.4	67.524	-3.3066	1.2373	3.9643	37.777	-4.6218	40.197	-2.6214
.5	56.537	-2.3279	.89022	2.7293	26.068	-3.3092	28.115	-1.5422
.6	45.407	-1.5065	.58889	1.7307	16.571	-2.1768	18.099	-.80030
.7	34.159	-.85473	.34162	.96400	9.2542	-1.2546	10.228	-.34115
.8	22.822	-.38221	.15624	.42402	4.0818	-.56967	4.5605	-.10182
.9	11.426	-.095904	.040078	.10486	1.0121	-.14535	1.1424	-.012783



TABLE III.- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{4}$  - Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 0.56; \frac{1}{k} = 9.9206$								
.1	114.57	-7.6314	2.4927	9.8883	100.07	-10.180	101.54	-8.9912
.2	102.48	-6.1441	2.0576	7.7668	78.720	-8.3829	80.994	-6.4605
.3	90.174	-4.7820	1.6414	5.9083	59.982	-6.6675	62.536	-4.4150
.4	77.669	-3.5633	1.2533	4.3106	43.842	-5.0730	46.283	-2.8283
.5	64.993	-2.5041	.90242	2.9711	30.277	-3.6376	32.342	-1.6604
.6	52.172	-1.6182	.59747	1.8884	19.263	-2.3968	20.805	-8.6020
.7	39.233	-.91708	.34691	1.0521	10.768	-1.3841	11.750	-.36614
.8	26.205	-.40977	.15885	.46338	4.7543	-.62959	5.2370	-.10919
.9	13.118	-.10277	.040885	.11472	1.1805	-.16010	1.3115	-.013708
$\bar{\omega} = 0.52; \frac{1}{k} = 10.684$								
.1	133.42	-8.3207	2.5188	10.767	117.01	-11.179	118.50	-9.8289
.2	119.25	-6.6811	2.0800	8.4639	92.105	-9.2125	94.401	-7.0395
.3	104.85	-5.1879	1.6601	6.4444	70.228	-7.3345	72.804	-4.7972
.4	90.246	-3.8581	1.2683	4.7064	51.367	-5.5873	53.829	-3.0655
.5	75.475	-2.7067	.91377	3.2474	35.502	-4.0118	37.583	-1.7961
.6	60.558	-1.7468	.60541	2.0641	22.606	-2.6478	24.159	-.92872
.7	45.522	-.98893	.35182	1.1526	12.647	-1.5320	13.636	-.39497
.8	30.398	-.44155	.16121	.50828	5.5893	-.69884	6.0756	-.11768
.9	15.214	-.11069	.041441	.12602	1.3893	-.17943	1.5212	-.014722
$\bar{\omega} = 0.48; \frac{1}{k} = 11.574$								
.1	157.19	-9.1170	2.5433	11.784	138.38	-12.327	139.88	-10.796
.2	140.37	-7.3026	2.1010	9.2704	108.98	-10.166	111.30	-7.7091
.3	123.34	-5.6584	1.6776	7.0644	83.148	-8.1005	85.746	-5.2398
.4	106.10	-4.2003	1.2823	5.1638	60.857	-6.1767	63.339	-3.3412
.5	88.685	-2.9424	.92448	3.5665	42.090	-4.4403	44.188	-1.9539
.6	71.126	-1.8965	.61296	2.2692	26.821	-2.9342	28.387	-1.0091
.7	53.449	-1.0727	.35649	1.2685	15.018	-1.7002	16.014	-.42845
.8	35.682	-.47861	.16352	.56009	6.6422	-.77652	7.1325	-.12769
.9	17.856	-.11993	.042127	.13903	1.6522	-.19893	1.7854	-.016030
$\bar{\omega} = 0.44; \frac{1}{k} = 12.626$								
.1	187.73	-10.050	2.5660	12.976	165.85	-13.667	167.36	-11.927
.2	167.53	-8.0319	2.1204	10.216	130.68	-11.278	133.02	-8.4934
.3	147.10	-6.2113	1.6938	7.7908	99.760	-8.9937	102.38	-5.7591
.4	126.47	-4.6031	1.2953	5.6995	73.060	-6.8642	75.559	-3.6648
.5	105.66	-3.2200	.93437	3.9400	50.563	-4.9397	52.675	-2.1395
.6	84.706	-2.0731	.61991	2.5093	32.243	-3.2684	33.819	-1.1033
.7	63.634	-1.1715	.36078	1.4041	18.066	-1.8965	19.070	-.46801
.8	42.473	-.52238	.16562	.62065	7.9967	-.86752	8.4905	-.13921
.9	21.251	-.13085	.042700	.15427	1.9906	-.22272	2.1249	-.017409



TABLE III.- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{4}$  - Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 0.40; \frac{1}{k} = 13.889$								
.1	227.89	-11.160	2.5869	14.397	201.97	-15.256	203.50	-13.271
.2	203.23	-8.9009	2.1383	11.342	159.23	-12.596	161.58	-9.4269
.3	178.34	-6.8713	1.7087	8.6554	121.61	-10.052	124.25	-6.3785
.4	153.25	-5.0844	1.3073	6.3368	89.112	-7.6779	91.627	-4.0515
.5	127.98	-3.5521	.94347	4.3840	61.708	-5.5306	63.834	-2.3616
.6	102.56	-2.2846	.62631	2.7945	39.374	-3.6632	40.961	-1.2163
.7	77.026	-1.2900	.36475	1.5652	22.077	-2.1283	23.087	-.51546
.8	51.400	-.57488	.16755	.69248	9.7787	-.97492	10.276	-.15321
.9	25.715	-.14395	.043222	.17230	2.4357	-.25074	2.5713	-.019214
$\bar{\omega} = 0.36; \frac{1}{k} = 15.432$								
.1	282.18	-12.506	2.6059	16.122	250.81	-17.176	252.35	-14.897
.2	251.49	-9.9563	2.1546	12.708	197.81	-14.189	200.18	-10.560
.3	220.57	-7.6739	1.7223	9.7038	151.15	-11.329	153.80	-7.1308
.4	189.45	-5.6705	1.3182	7.1092	110.81	-8.6599	113.35	-4.5211
.5	158.14	-3.9571	.95176	4.9219	76.779	-6.2430	78.916	-2.6323
.6	126.69	-2.5426	.63208	3.1398	49.018	-4.1401	50.614	-1.3541
.7	95.125	-1.4346	.36835	1.7601	27.501	-2.4075	28.517	-.57375
.8	63.467	-.63902	.16935	.77937	12.189	-1.1037	12.689	-.17024
.9	31.748	-.15997	.043692	.19413	3.0383	-.28479	3.1746	-.021343
$\bar{\omega} = 0.34; \frac{1}{k} = 16.340$								
.1	316.78	-13.293	2.6146	17.132	281.95	-18.296	283.49	-15.848
.2	282.25	-10.575	2.1621	13.507	222.41	-15.118	224.79	-11.222
.3	247.49	-8.1444	1.7285	10.317	169.99	-12.074	172.65	-7.5717
.4	212.52	-6.0145	1.3232	7.5608	124.65	-9.2323	127.19	-4.7977
.5	177.37	-4.1949	.95558	5.2364	86.387	-6.6585	88.530	-2.7910
.6	142.08	-2.6942	.63480	3.3416	55.167	-4.4168	56.766	-1.4353
.7	106.66	-1.5197	.37001	1.8739	30.960	-2.5700	31.978	-.60749
.8	71.158	-.67674	.17012	.83010	13.726	-1.1796	14.228	-.18008
.9	35.594	-.16938	.043903	.20682	3.4227	-.30436	3.5591	-.022528
$\bar{\omega} = 0.32; \frac{1}{k} = 17.361$								
.1	358.08	-14.176	2.6229	18.264	319.11	-19.550	320.65	-16.915
.2	318.96	-11.268	2.1692	14.403	251.77	-16.157	254.15	-11.965
.3	279.61	-8.6725	1.7345	11.005	192.46	-12.907	195.13	-8.0677
.4	240.05	-6.4007	1.3280	8.0672	141.16	-9.8726	143.71	-5.1084
.5	200.32	-4.4620	.95921	5.5888	97.853	-7.1228	100.00	-2.9695
.6	160.43	-2.8647	.63741	3.5676	62.505	-4.7257	64.109	-1.5263
.7	120.43	-1.6153	.37167	2.0013	35.087	-2.7503	36.108	-.64642
.8	80.336	-.71916	.17090	.88695	15.560	-1.2636	16.063	-.19168
.9	40.183	-.17998	.044191	.22107	3.8812	-.32501	4.0180	-.023893

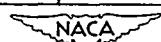


TABLE III.- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{4}$  - Concluded

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 0.30; \frac{1}{k} = 18.519$								
.1	407.91	-15.173	2.6308	19.544	363.95	-20.964	365.49	-18.117
.2	363.25	-12.052	2.1759	15.416	287.20	-17.329	289.59	-12.805
.3	318.37	-9.2700	1.7400	11.782	219.59	-13.847	222.26	-8.6260
.4	273.27	-6.8378	1.3325	8.6389	161.09	-10.594	163.64	-5.4584
.5	228.00	-4.7645	.96265	5.9866	111.69	-7.6455	113.84	-3.1716
.6	182.58	-3.0577	.63981	3.8228	71.360	-5.0750	72.968	-1.6291
.7	137.04	-1.7236	.37312	2.1452	40.068	-2.9554	41.091	-.68928
.8	91.409	-.76724	.17168	.95102	17.774	-1.3571	18.278	-.20453
.9	45.720	-.19198	.044380	.23713	4.4342	-.34982	4.5717	-.025592
$\bar{\omega} = 0.28; \frac{1}{k} = 19.841$								
.1	468.79	-16.310	2.6381	21.002	418.74	-22.573	420.29	-19.486
.2	417.37	-12.946	2.1822	16.570	330.49	-18.662	332.88	-13.763
.3	365.72	-9.9514	1.7453	12.666	252.73	-14.915	255.41	-9.2642
.4	313.86	-7.3367	1.3367	9.2901	185.44	-11.415	188.00	-5.8582
.5	261.83	-5.1099	.96581	6.4396	128.60	-8.2412	130.76	-3.4016
.6	209.64	-3.2782	.64204	4.1133	82.182	-5.4721	83.792	-1.7470
.7	157.34	-1.8474	.37452	2.3089	46.154	-3.1876	47.180	-.73918
.8	104.94	-.82217	.17243	1.0239	20.479	-1.4630	20.984	-.21933
.9	52.485	-.20570	.044526	.25545	5.1097	-.37849	5.2482	-.027560
$\bar{\omega} = 0.14; \frac{1}{k} = 39.683$								
.1	1886.0	-33.154	2.6756	42.642	1694.2	-46.278	1695.8	-39.734
.2	1677.1	-26.225	2.2144	33.680	1338.3	-38.291	1340.7	-27.952
.3	1468.0	-20.099	1.7721	25.776	1024.3	-30.639	1027.0	-18.741
.4	1258.7	-14.779	1.3583	18.930	752.30	-23.475	754.88	-11.827
.5	1049.2	-10.271	.98233	13.140	522.25	-16.973	524.43	-6.8450
.6	839.52	-6.5773	.65392	8.4053	334.11	-11.279	335.74	-3.5093
.7	629.75	-3.7015	.38163	4.7256	187.86	-6.5928	188.90	-1.4806
.8	419.88	-1.6456	.17604	2.0991	83.462	-3.0278	83.972	-.44096
.9	209.96	-.41149	.045481	.52449	20.856	-.78657	20.995	-.054223
$\bar{\omega} = 0.06; \frac{1}{k} = 92.593$								
.1	10284.	-77.701	2.6858	99.908	9252.7	-108.72	9254.3	-93.271
.2	9142.4	-61.406	2.2232	78.934	7310.4	-89.975	7312.9	-65.660
.3	8000.1	-47.022	1.7787	60.430	5596.8	-72.077	5599.5	-43.888
.4	6857.6	-34.553	1.3643	44.394	4111.7	-55.183	4114.2	-27.660
.5	5715.0	-23.998	.98669	30.826	2855.1	-39.933	2857.3	-15.995
.6	4572.1	-15.360	.65697	19.727	1827.2	-26.552	1828.8	-8.2160
.7	3429.2	-8.6410	.38370	11.095	1027.7	-15.511	1028.7	-3.3992
.8	2286.2	-3.8407	.17868	4.9307	456.72	-6.9765	457.23	-1.0336
.9	1143.1	-.96020	.046363	1.2325	114.18	-1.7974	114.31	-.12921

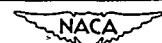


TABLE IV.- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{10}{7}$ 

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 20.00; \frac{1}{k} = 0.19608$								
.1	0.024016	0.11078	0.004373	0.11103	0.021980	0.15619	0.021380	0.13391
.2	.021319	.087336	.004444	.087134	.017419	.12934	.016797	.094005
.3	.018483	.066504	.003928	.066019	.013436	.10358	.012536	.062721
.4	.015998	.048583	.003042	.047681	.009957	.079427	.009310	.039368
.5	.013403	.033281	.002032	.032615	.007006	.057441	.006446	.022495
.6	.010965	.021146	.001071	.020521	.004537	.038212	.004263	.011521
.7	.008370	.011508	.000468	.011467	.002589	.022290	.002435	.004730
.8	.005609	.005051	.000088	.005089	.001164	.010262	.001074	.001458
.9	.002995	.000742	.000052	.001312	.000298	.002645	.000267	.000114
$\bar{\omega} = 10.00; \frac{1}{k} = 0.39216$								
.1	0.098229	0.21452	-0.014864	0.23760	0.083138	0.30670	0.086052	0.26152
.2	.087717	.16917	-.010392	.19137	.065549	.25397	.068212	.18434
.3	.076581	.12793	-.005502	.14817	.049772	.20318	.051495	.12242
.4	.066958	.092068	-.002538	.10916	.036075	.15592	.038961	.075678
.5	.057100	.063649	-.000917	.076307	.024858	.11303	.028150	.044299
.6	.044875	.040409	-.000611	.049233	.015853	.075230	.017179	.023329
.7	.033030	.020100	-.001368	.027274	.008738	.043865	.008844	.009052
.8	.023961	.005934	-.000803	.011532	.003709	.020260	.004278	.001826
.9	.013987	.000571	-.000099	.002743	.000890	.005297	.001346	.000087
$\bar{\omega} = 5.00; \frac{1}{k} = 0.78431$								
.1	0.40975	0.41305	-0.067894	0.41892	0.36501	0.60697	0.36110	0.52597
.2	.35900	.32327	-.062818	.33859	.29090	.50554	.27486	.37327
.3	.30903	.23840	-.052940	.26896	.22642	.40576	.19985	.24588
.4	.26424	.16080	-.039233	.20667	.16986	.31019	.14151	.14483
.5	.22605	.095537	-.024598	.14986	.12025	.22233	.099398	.072794
.6	.19169	.047472	-.012300	.099018	.077824	.14588	.068450	.029222
.7	.15545	.018156	-.004358	.056442	.043682	.083801	.043166	.008400
.8	.11190	.004571	-.000776	.024875	.019072	.038040	.021545	.001392
.9	.059112	.000525	-.000034	.006045	.004617	.009750	.005853	.000076
$\bar{\omega} = 3.90; \frac{1}{k} = 1.0055$								
.1	0.65324	0.50583	-0.10541	0.44729	0.56180	0.80533	0.54356	0.67048
.2	.57818	.37617	-.10340	.35416	.44366	.67681	.41581	.44986
.3	.51181	.26060	-.095628	.27674	.34270	.54976	.31611	.27623
.4	.45280	.16462	-.081652	.21146	.25655	.42655	.23931	.15109
.5	.39669	.092110	-.063036	.15509	.18306	.31083	.17759	.070920
.6	.33736	.043713	-.042776	.10576	.12102	.20718	.12430	.026975
.7	.26919	.016385	-.024296	.063470	.070388	.12042	.076767	.007538
.8	.18912	.004254	-.010375	.029925	.032246	.054900	.036937	.001276
.9	.097909	.000562	-.002370	.007850	.008255	.013994	.009731	.000080



TABLE IV.- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{10}{7}$  - Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 3.10; \frac{1}{k} = 1.2650$								
.1	1.0383	0.55202	-0.026030	0.45915	0.81398	0.95442	0.82612	0.75094
.2	.94254	.39131	-.043098	.34887	.63135	.80753	.66314	.47729
.3	.85287	.25886	-.053783	.26005	.47729	.66199	.52858	.27813
.4	.76364	.15701	-.056610	.18934	.34903	.51990	.41263	.14520
.5	.66853	.085161	-.051736	.13306	.24350	.38471	.30815	.065689
.6	.56203	.039776	-.040889	.088027	.15806	.26116	.21253	.024445
.7	.44078	.015052	-.026979	.052122	.090947	.15495	.12792	.006849
.8	.30439	.004136	-.013462	.024700	.041620	.072182	.059959	.001218
.9	.15565	.000626	-.003636	.006628	.010757	.018790	.015505	.000087
$\bar{\omega} = 2.40; \frac{1}{k} = 1.6340$								
.1	1.8318	0.54974	0.18537	0.60287	1.3728	1.0137	1.4603	0.75953
.2	1.6835	.37567	.13242	.44810	1.0543	.86139	1.2081	.46295
.3	1.5290	.24094	.086294	.32268	.78531	.71038	.97662	.26021
.4	1.3626	.14285	.049312	.22371	.56261	.56245	.76046	.13213
.5	1.1793	.076646	.022627	.14768	.38244	.42065	.55923	.058816
.6	.97664	.036055	.006106	.090876	.24084	.28942	.37713	.021915
.7	.75411	.014149	-.001641	.049898	.13415	.17453	.22167	.006327
.8	.51391	.004230	-.003064	.022031	.059452	.082851	.10184	.001219
.9	.26049	.000737	-.001348	.005572	.014926	.022030	.025989	.000101
$\bar{\omega} = 2.00; \frac{1}{k} = 1.9608$								
.1	2.7776	0.52445	0.36145	0.82838	2.1124	0.99321	2.2607	0.72785
.2	2.5490	.35315	.28108	.62077	1.6256	.84532	1.8724	.43590
.3	2.3039	.22423	.20775	.44933	1.2111	.69868	1.5051	.24185
.4	2.0379	.13244	.14419	.31153	.86586	.55492	1.1596	.12196
.5	1.7484	.071424	.092264	.20413	.58558	.41680	.84159	.054384
.6	1.4349	.034220	.052819	.12352	.36560	.28838	.55984	.020562
.7	1.0990	.013953	.025609	.065972	.20114	.17513	.32503	.006148
.8	.74414	.004454	.009337	.028033	.087739	.083850	.14788	.001264
.9	.37564	.000844	.001781	.006762	.021618	.022517	.037504	.000115
$\bar{\omega} = 1.60; \frac{1}{k} = 2.4510$								
.1	4.5987	0.48213	0.55882	1.2428	3.6345	0.92633	3.8498	0.66890
.2	4.1934	.32244	.44878	.94652	2.8145	.78891	3.1614	.39667
.3	3.7598	.20454	.34596	.69644	2.1093	.65276	2.5114	.21919
.4	3.2962	.12169	.25344	.49045	1.5155	.51935	1.9092	.11094
.5	2.8026	.066836	.17373	.32578	1.0286	.39110	1.3668	.050201
.6	2.2809	.033132	.10860	.19914	.64321	.27159	.89772	.019568
.7	1.7345	.014275	.059007	.10691	.35359	.16574	.51557	.006169
.8	1.1680	.004925	.025035	.045356	.15368	.079845	.23265	.001375
.9	.58762	.001015	.005899	.010837	.037616	.021602	.058701	.000137



TABLE IV.- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{10}{7}$  - Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 1.34; \frac{1}{k} = 2.9265$								
0.1	6.8034	0.44791	0.68734	1.6731	5.5456	0.85993	5.8042	0.61879
.2	6.1691	.30017	.55836	1.2879	4.3160	.73214	4.7264	.36691
.3	5.4986	.19175	.43669	.95847	3.2513	.60570	3.7213	.20370
.4	4.7926	.11563	.32561	.68307	2.3481	.48196	2.8041	.10426
.5	4.0528	.064927	.22800	.45926	1.6015	.36313	1.9909	.048116
.6	3.2826	.033270	.14616	.28410	1.0061	.25243	1.2981	.019357
.7	2.4862	.015005	.081807	.15426	.55523	.15430	.74105	.006390
.8	1.6693	.005471	.035933	.066110	.24206	.074525	.33290	.001510
.9	.83829	.001186	.008818	.015926	.059360	.020230	.083768	.000159
$\bar{\omega} = 1.18; \frac{1}{k} = 3.3234$								
0.1	8.9627	0.42586	0.76265	2.0351	7.4470	0.81237	7.7307	0.58538
.2	8.0975	.28683	.62268	1.5757	5.8135	.69124	6.2605	.34835
.3	7.1917	.18481	.49006	1.1802	4.3935	.57152	4.9025	.19477
.4	6.2471	.11291	.36820	.84678	3.1834	.45453	3.6751	.10085
.5	5.2666	.064608	.26014	.57338	2.1786	.34235	2.5972	.047376
.6	4.2544	.033956	.16853	.35729	1.3732	.23796	1.6867	.019540
.7	3.2154	.015808	.095466	.19543	.76027	.14550	.95977	.006667
.8	2.1555	.005966	.042512	.084364	.33245	.070312	.43014	.001637
.9	1.0814	.001331	.010597	.020466	.081760	.019106	.10808	.000179
$\bar{\omega} = 1.06; \frac{1}{k} = 3.6996$								
0.1	11.274	0.40982	0.81595	2.3760	9.4977	0.77486	9.7992	0.56028
.2	10.158	.27775	.66823	1.8470	7.4304	.65883	7.9032	.33512
.3	8.9987	.18063	.52791	1.3893	5.6283	.54429	6.1647	.18890
.4	7.7983	.11178	.39844	1.0014	4.0881	.43253	4.6047	.098981
.5	6.5605	.065059	.28302	.68137	2.8047	.32554	3.2438	.047269
.6	5.2900	.034937	.18448	.42674	1.7723	.22616	2.1008	.019926
.7	3.9923	.016678	.10524	.23463	.98371	.13823	1.1928	.006980
.8	2.6735	.006458	.047245	.10183	.43120	.066782	.53373	.001765
.9	1.3404	.001470	.011881	.024835	.10625	.018145	.13398	.000197
$\bar{\omega} = 0.94; \frac{1}{k} = 4.1719$								
0.1	14.536	0.39523	0.86573	2.7988	12.406	0.73731	12.724	0.53639
.2	13.063	.27027	.71081	2.1834	9.7250	.62622	10.222	.32335
.3	11.544	.17789	.56331	1.6486	7.3824	.51672	7.9441	.18429
.4	9.9822	.11183	.42676	1.1932	5.3743	.41012	5.9141	.098025
.5	8.3814	.066382	.30447	.81546	3.6960	.30830	4.1539	.047733
.6	6.7472	.036495	.19948	.51308	2.3412	.21393	2.6836	.020614
.7	5.0854	.017879	.11446	.28346	1.3028	.13062	1.5207	.007429
.8	3.4023	.007098	.051713	.12363	.57257	.063064	.67949	.001928
.9	1.7048	.001646	.013099	.030302	.14151	.017125	.17042	.000220



TABLE IV.- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{10}{7}$  - Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 0.88; \frac{1}{k} = 4.4563$								
.1	16.692	0.38890	0.88908	3.0506	14.334	0.71916	14.660	0.52542
.2	14.983	.26744	.73079	2.3836	11.247	.61038	11.755	.31836
.3	13.226	.17730	.57993	1.8029	8.5465	.50326	9.1200	.18269
.4	11.424	.11247	.44007	1.3074	6.2284	.39910	6.7790	.098025
.5	9.5838	.067491	.31457	.89526	4.2882	.29976	4.7549	.048262
.6	7.7093	.037567	.20654	.56448	2.7195	.20784	3.0684	.021117
.7	5.8070	.018645	.11881	.31255	1.5151	.12681	1.7372	.007718
.8	3.8834	.007491	.053828	.13662	.66667	.061190	.77571	.002034
.9	1.9453	.001753	.013677	.033567	.16494	.016614	.19447	.000235
$\bar{\omega} = 0.82; \frac{1}{k} = 4.7824$								
.1	19.342	0.38353	0.91130	3.3367	16.707	0.70190	17.040	0.51551
.2	17.341	.26547	.74980	2.6110	13.121	.59525	13.639	.31424
.3	15.290	.17742	.59576	1.9782	9.9795	.49032	10.564	.18172
.4	13.195	.11366	.45275	1.4370	7.2801	.38845	7.8409	.098456
.5	11.060	.068989	.32419	.98584	5.0176	.29146	5.4928	.049046
.6	8.8903	.038894	.21328	.62282	3.1857	.20188	3.5408	.021747
.7	6.6929	.019555	.12295	.34557	1.7769	.12305	2.0030	.008059
.8	4.4740	.007949	.055847	.15139	.78280	.059333	.89382	.002147
.9	2.2406	.001876	.014229	.037284	.19390	.016105	.22400	.000251
$\bar{\omega} = 0.78; \frac{1}{k} = 5.0277$								
.1	21.459	0.38065	0.92543	3.5503	18.605	0.69110	18.943	0.50967
.2	19.225	.26475	.76190	2.7807	14.619	.58570	15.145	.31210
.3	16.940	.17799	.60583	2.1089	11.126	.48210	11.718	.18151
.4	14.609	.11482	.46082	1.5336	8.1220	.38163	8.6892	.099041
.5	12.239	.070251	.33031	1.0534	5.6017	.28610	6.0821	.049745
.6	9.8336	.039948	.21757	.66630	3.5591	.19800	3.9181	.022268
.7	7.4003	.020259	.12560	.37017	1.9867	.12059	2.2152	.008336
.8	4.9456	.008298	.057134	.16239	.87589	.058063	.98815	.002243
.9	2.4765	.001968	.014579	.040046	.21716	.015730	.24758	.000263
$\bar{\omega} = 0.74; \frac{1}{k} = 5.2994$								
.1	23.931	0.37845	0.93901	3.7854	20.822	0.68109	21.164	0.50458
.2	21.423	.26462	.77353	2.9675	16.370	.57681	16.902	.31056
.3	18.864	.17903	.61551	2.2527	12.466	.47440	13.064	.18173
.4	16.259	.11633	.46857	1.6399	9.1055	.37520	9.6789	.099906
.5	13.614	.071762	.33620	1.1276	6.2841	.28101	6.7696	.050607
.6	10.934	.041162	.22170	.71412	3.9954	.19428	4.3581	.022861
.7	8.2256	.021053	.12815	.39723	2.2318	.11822	2.4628	.008641
.8	5.4958	.008687	.058373	.17449	.98472	.056875	1.0982	.002347
.9	2.7516	.002071	.014922	.043091	.24428	.015384	.27509	.000278



TABLE IV.- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{10}{7}$  - Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 0.70; \frac{1}{k} = 5.6022$								
0.1	26.838	0.37710	0.95201	4.0456	23.432	0.67208	23.778	0.50048
.2	24.009	.26519	.78466	3.1742	18.431	.56873	18.969	.30975
.3	21.128	.18061	.62478	2.4118	14.043	.46734	14.648	.18248
.4	18.200	.11826	.47600	1.7574	10.264	.36925	10.843	.10110
.5	15.232	.073569	.34185	1.2097	7.0880	.27626	7.5784	.051670
.6	12.228	.042566	.22566	.76696	4.5095	.19079	4.8758	.023564
.7	9.1964	.021955	.13059	.42714	2.5208	.11596	2.7540	.008987
.8	6.1430	.009123	.059563	.18785	1.1130	.055740	1.2276	.002460
.9	3.0751	.002185	.015247	.046449	.27631	.015086	.30745	.000292
$\bar{\omega} = 0.66; \frac{1}{k} = 5.9418$								
0.1	30.292	0.37675	0.96440	4.3355	26.533	0.66431	26.884	0.49759
.2	27.080	.26659	.79527	3.4043	20.881	.56167	21.425	.30981
.3	23.816	.18287	.63362	2.5889	15.918	.46106	16.530	.18383
.4	20.505	.12070	.48309	1.8882	11.641	.36387	12.226	.10267
.5	17.152	.075726	.34723	1.3010	8.0437	.27193	8.5387	.052957
.6	13.765	.044195	.22944	.82571	5.1208	.18757	5.4905	.024393
.7	10.349	.022984	.13292	.46036	2.8644	.11384	3.0998	.009389
.8	6.9114	.009616	.060704	.20270	1.2656	.054643	1.3813	.002591
.9	3.4593	.002314	.015556	.050185	.31446	.014712	.34587	.000309
$\bar{\omega} = 0.62; \frac{1}{k} = 6.3251$								
0.1	34.436	0.37767	0.97618	4.6607	30.257	0.65813	30.611	0.49613
.2	30.765	.26902	.80535	3.6623	23.822	.55589	24.372	.31095
.3	27.041	.18593	.64202	2.7873	18.170	.45581	18.787	.18590
.4	23.270	.12372	.48983	2.0347	13.294	.35930	13.885	.10475
.5	19.457	.078299	.35235	1.4032	9.1915	.26813	9.6908	.054534
.6	15.608	.046094	.23303	.89148	5.8551	.18467	6.2279	.025341
.7	11.732	.024163	.13514	.49754	3.2772	.11197	3.5146	.009851
.8	7.8332	.010176	.061785	.21931	1.4490	.053648	1.5657	.002744
.9	3.9203	.002459	.015851	.054350	.36030	.014433	.39197	.000328
$\bar{\omega} = 0.60; \frac{1}{k} = 6.5360$								
0.1	36.826	0.37868	0.98182	4.8386	32.405	0.65578	32.761	0.49602
.2	32.890	.27069	.81019	3.8035	25.519	.55363	26.071	.31197
.3	28.901	.18780	.64605	2.8959	19.468	.45368	20.088	.18729
.4	24.864	.12550	.49306	2.1148	14.248	.35738	14.841	.10599
.5	20.786	.079770	.35481	1.4591	9.8537	.26650	10.355	.055445
.6	16.672	.047164	.23475	.92743	6.2787	.18343	6.6532	.025893
.7	12.529	.024820	.13621	.51787	3.5153	.11109	3.7538	.010104
.8	8.3648	.010487	.062313	.22839	1.5547	.053241	1.6720	.002821
.9	4.1861	.002540	.016000	.056630	.38670	.014337	.41854	.000339



TABLE IV.- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{10}{7}$  - Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 0.56; \frac{1}{k} = 7.0028$								
.1	42.398	0.38202	0.99264	5.2307	37.414	0.65282	37.774	0.49748
.2	37.845	.27509	.81945	4.1145	29.477	.55052	30.034	.31523
.3	33.237	.19239	.65376	3.1349	22.498	.45054	23.123	.19078
.4	28.581	.12966	.49926	2.2911	16.473	.35441	17.071	.10897
.5	23.883	.083137	.35952	1.5821	11.399	.26389	11.904	.057529
.6	19.150	.049572	.23806	1.0065	7.2670	.18132	7.6444	.027124
.7	14.388	.026287	.13826	.56256	4.0711	.10968	4.3114	.010697
.8	9.6039	.011175	.063310	.24835	1.8017	.052434	1.9198	.003008
.9	4.8056	.002717	.016277	.061650	.44842	.014071	.48050	.000364
$\bar{\omega} = 0.52; \frac{1}{k} = 7.5415$								
.1	49.307	0.38751	1.0028	5.6802	43.626	0.65263	43.989	0.50140
.2	43.986	.28121	.82813	4.4708	34.384	.54966	34.946	.32026
.3	38.612	.19831	.66099	3.4087	26.254	.44919	26.885	.19557
.4	33.188	.13482	.50505	2.4931	19.233	.35275	19.835	.11273
.5	27.723	.087194	.36393	1.7229	13.314	.26218	13.824	.060087
.6	22.221	.052425	.24116	1.0970	8.4930	.17979	8.8731	.028601
.7	16.691	.028005	.14016	.61369	4.7604	.10846	5.0025	.011357
.8	11.140	.011974	.064240	.27116	2.1079	.051726	2.2270	.003216
.9	5.5735	.002923	.016527	.067380	.52492	.013847	.55729	.000384
$\bar{\omega} = 0.48; \frac{1}{k} = 8.1699$								
.1	58.014	0.39569	1.0122	6.2013	51.457	0.65611	51.824	0.50857
.2	51.727	.28949	.83623	4.8838	40.571	.55189	41.138	.32757
.3	45.386	.20590	.66774	3.7259	30.991	.45028	31.626	.20188
.4	38.995	.14120	.51047	2.7269	22.712	.35298	23.319	.11747
.5	32.562	.092117	.36805	1.8859	15.730	.26185	16.243	.063214
.6	26.093	.055827	.24405	1.2017	10.039	.17918	10.422	.030370
.7	19.595	.030029	.14195	.67278	5.6298	.10785	5.8736	.012165
.8	13.075	.012913	.065117	.29753	2.4942	.051346	2.6141	.003445
.9	6.5414	.003162	.016765	.074000	.62140	.013672	.65408	.000424
$\bar{\omega} = 0.44; \frac{1}{k} = 8.9127$								
.1	69.204	0.40735	1.0210	6.8136	61.523	0.66443	61.893	0.51976
.2	61.675	.30053	.84374	5.3688	48.524	.55807	49.095	.33787
.3	54.090	.21563	.67400	4.0982	37.079	.45458	37.719	.21015
.4	46.456	.14916	.51549	3.0013	27.185	.35564	27.796	.12349
.5	38.780	.098135	.37188	2.0770	18.836	.26330	19.352	.067086
.6	31.067	.059932	.24674	1.3244	12.026	.17977	12.411	.032548
.7	23.326	.032456	.14362	.74205	6.7476	.10803	6.9928	.013115
.8	15.563	.014024	.065933	.32842	2.9909	.051283	3.1116	.003754
.9	7.7850	.003446	.017006	.081740	.74570	.013789	.77844	.000457

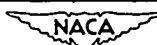


TABLE IV.- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{10}{7}$  - Continued

$x_1$	$I_5$	$I_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 0.40; \frac{1}{k} = 9.8039$								
0.1	83.917	0.42356	1.0290	7.5440	74.761	0.67892	75.133	0.53657
.2	74.754	.31522	.85063	5.9472	58.983	.56936	59.558	.35196
.3	65.535	.22813	.67975	4.5422	45.086	.46293	45.730	.22100
.4	56.267	.15918	.52011	3.3282	33.067	.36146	33.682	.13108
.5	46.955	.10556	.37539	2.3047	22.921	.26697	23.440	.071876
.6	37.608	.064952	.24921	1.4705	14.640	.18187	15.028	.035137
.7	28.231	.035393	.14515	.82448	8.2177	.10897	8.4644	.014280
.8	18.833	.015367	.066685	.36518	3.6442	.051633	3.7656	.004115
.9	9.4201	.003787	.017204	.090970	.90880	.013745	.94195	.000504
$\bar{\omega} = 0.36; \frac{1}{k} = 10.893$								
0.1	103.80	0.44586	1.0363	8.4321	92.656	0.70187	93.030	0.56045
.2	92.432	.33469	.85690	6.6502	73.122	.58766	73.700	.37125
.3	81.004	.24434	.68498	5.0814	55.911	.47686	56.558	.23546
.4	69.526	.17192	.52430	3.7253	41.019	.37150	41.637	.14097
.5	58.005	.11491	.37858	2.5810	28.443	.27374	28.964	.077960
.6	46.447	.071181	.25146	1.6478	18.174	.18593	18.563	.038448
.7	34.861	.039013	.14653	.92445	10.205	.11101	10.453	.015754
.8	23.253	.017012	.067366	.40973	4.5275	.052443	4.6496	.004550
.9	11.630	.004204	.017403	.10213	1.1297	.014090	1.1629	.000575
$\bar{\omega} = 0.34; \frac{1}{k} = 11.534$								
0.1	116.48	0.45996	1.0397	8.9525	104.06	0.71741	104.44	0.57613
.2	103.70	.34681	.85979	7.0620	82.134	.60017	82.714	.38338
.3	90.864	.25426	.68739	5.3973	62.811	.48654	63.460	.24418
.4	77.978	.17961	.52625	3.9577	46.089	.37864	46.708	.14686
.5	65.048	.12049	.38006	2.7428	31.963	.27858	32.486	.081600
.6	52.082	.074895	.25250	1.7515	20.427	.18901	20.817	.040331
.7	39.087	.041159	.14719	.98292	11.473	.11276	11.721	.016569
.8	26.070	.017983	.067677	.43578	5.0908	.053122	5.2130	.004798
.9	13.039	.004449	.017477	.10866	1.2707	.014027	1.3038	.000617
$\bar{\omega} = 0.32; \frac{1}{k} = 12.255$								
0.1	131.61	0.47654	1.0429	9.5366	117.68	0.73648	118.05	0.59467
.2	117.15	.36087	.86254	7.5242	92.890	.61558	93.471	.39729
.3	102.63	.26568	.68968	5.7516	71.046	.49860	71.696	.25440
.4	88.063	.18841	.52808	4.2185	52.139	.38750	52.759	.15375
.5	73.452	.12686	.38145	2.9242	36.164	.28471	36.688	.085784
.6	58.806	.079101	.25348	1.8678	23.116	.19285	23.507	.042540
.7	44.130	.043581	.14780	1.0485	12.985	.11492	13.234	.017441
.8	29.432	.019078	.068001	.46495	5.7629	.054338	5.8854	.005078
.9	14.720	.004725	.017559	.11598	1.4385	.014205	1.4719	.000624



TABLE IV. - VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{10}{7}$  - Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 0.30; \frac{1}{k} = 13.072$								
0.1	149.86	0.49613	1.0459	10.197	134.10	0.75982	134.48	0.61671
.2	133.37	.37731	.86513	8.0467	105.87	.63455	106.45	.41428
.3	116.83	.27891	.69184	6.1522	80.982	.51341	81.634	.26639
.4	100.23	.19856	.52982	4.5132	59.439	.39857	60.061	.16166
.5	83.594	.13414	.38278	3.1292	41.234	.29259	41.759	.090517
.6	66.919	.083894	.25442	1.9992	26.360	.19794	26.752	.045131
.7	50.214	.046331	.14838	1.1225	14.810	.11778	15.059	.018613
.8	33.488	.020318	.068276	.49794	6.5741	.055483	6.6967	.005423
.9	16.748	.005039	.017653	.12423	1.6417	.014761	1.6747	.000670
$\bar{\omega} = 0.28; \frac{1}{k} = 14.006$								
0.1	172.16	0.51931	1.0487	10.950	154.17	0.78778	154.55	0.64341
.2	153.20	.39658	.86753	8.6424	121.73	.65730	122.31	.43399
.3	134.17	.29432	.69384	6.6089	93.123	.53118	93.777	.28020
.4	115.10	.21030	.53141	4.8492	68.359	.41177	68.982	.17116
.5	95.984	.14254	.38400	3.3628	47.428	.30183	47.954	.096084
.6	76.831	.089398	.25525	2.1490	30.324	.20355	30.717	.048136
.7	57.649	.049486	.14891	1.2069	17.040	.12118	17.290	.019924
.8	38.445	.021739	.068528	.53550	7.5650	.056848	7.688	.005828
.9	19.226	.005397	.017691	.13367	1.8888	.014636	1.9225	.000745
$\bar{\omega} = 0.26; \frac{1}{k} = 15.083$								
0.1	199.81	0.54700	1.0514	11.817	179.05	0.82228	179.43	0.67523
.2	177.77	.41940	.86979	9.3284	141.38	.68559	141.97	.45761
.3	155.68	.31245	.69573	7.1346	108.17	.55347	108.83	.29686
.4	133.53	.22404	.53293	5.2359	79.416	.42853	80.040	.18172
.5	111.34	.15233	.38515	3.6317	55.106	.31372	55.634	.10246
.6	89.119	.095793	.25608	2.3213	35.238	.21146	35.632	.051456
.7	66.864	.053140	.14941	1.3039	19.804	.12539	20.054	.021277
.8	44.588	.023382	.068770	.57869	8.7934	.058751	8.9167	.006141
.9	22.298	.005810	.017758	.14447	2.1961	.015184	2.2297	.000762
$\bar{\omega} = 0.24; \frac{1}{k} = 16.340$								
0.1	234.65	0.58022	1.0538	12.827	210.41	0.86446	210.79	0.71364
.2	208.74	.44661	.87187	10.127	166.16	.71998	166.75	.48592
.3	182.78	.33395	.69746	7.7466	127.14	.58068	127.80	.31709
.4	156.76	.24024	.53434	5.6860	93.352	.44940	93.977	.19464
.5	130.70	.16386	.38621	3.9445	64.784	.32816	65.312	.11018
.6	104.60	.10330	.25681	2.5217	41.432	.22074	41.826	.055122
.7	78.478	.057415	.14983	1.4168	23.287	.13015	23.539	.023033
.8	52.331	.025298	.068988	.62893	10.341	.060979	10.465	.006791
.9	26.169	.006292	.017821	.15704	2.5829	.015689	2.6169	.000842



TABLE IV.- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{10}{7}$  - Continued

$x_1$	$I_5$	$I_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 0.22; \frac{1}{k} = 17.825$								
.1	279.42	0.62058	1.0561	14.019	250.70	0.91678	251.08	0.76050
.2	248.54	.47946	.87381	11.069	197.99	.76306	198.58	.52076
.3	217.60	.35974	.69908	8.4684	151.52	.61482	152.17	.34030
.4	186.61	.25964	.53563	6.2167	111.26	.47501	111.89	.20985
.5	155.57	.17756	.38720	4.3134	77.219	.34667	77.748	.11919
.6	124.50	.11219	.25752	2.7581	49.390	.23301	49.785	.060059
.7	93.402	.062489	.15030	1.5499	27.764	.13760	28.016	.025002
.8	62.280	.027569	.069176	.68814	12.331	.063629	12.455	.007315
.9	31.144	.006863	.017900	.17185	3.0805	.016777	3.1143	.000955
$\bar{\omega} = 0.20; \frac{1}{k} = 19.608$								
.1	338.28	0.67013	1.0581	15.446	303.68	0.98161	304.06	0.81839
.2	300.86	.51961	.87556	12.197	239.85	.81627	240.44	.56219
.3	263.38	.39114	.70054	9.3329	183.56	.65700	184.22	.36912
.4	225.85	.28314	.53680	6.8523	134.80	.50693	135.43	.22847
.5	188.27	.19412	.38809	4.7551	93.570	.36947	94.099	.13018
.6	150.66	.12293	.25814	3.0410	59.855	.24792	60.250	.065834
.7	113.02	.068572	.15068	1.7092	33.650	.14620	33.902	.027456
.8	75.361	.030295	.069389	.75897	14.947	.068030	15.071	.008061
.9	37.684	.007546	.017948	.18956	3.7349	.017786	3.7684	.001007
$\bar{\omega} = 0.16; \frac{1}{k} = 24.510$								
.1	529.07	0.81079	1.0616	19.362	475.38	1.1701	475.76	0.98538
.2	470.45	.63281	.87860	15.293	375.52	.97174	376.11	.68063
.3	411.77	.47912	.70306	11.704	287.43	.78047	288.09	.45146
.4	353.04	.34865	.53885	8.5953	211.11	.60150	211.74	.27906
.5	294.27	.24010	.38964	5.9662	146.56	.43705	147.09	.16073
.6	235.46	.15262	.25929	3.8165	93.770	.29402	94.167	.081242
.7	176.62	.085381	.15132	2.1457	52.728	.17104	52.980	.034380
.8	117.76	.037803	.069756	.95311	23.426	.080611	23.550	.009979
.9	58.882	.009429	.018009	.23817	5.8540	.019838	5.8882	.001343
$\bar{\omega} = 0.10; \frac{1}{k} = 39.216$								
.1	1355.8	1.2509	1.0655	31.075	1219.4	1.7731	1219.8	1.5076
.2	1205.3	.98347	.88188	24.549	963.41	1.4697	964.00	1.0534
.3	1054.8	.74964	.70582	18.793	737.53	1.1784	738.19	.70070
.4	904.19	.54857	.54105	13.805	541.80	.90535	542.43	.43930
.5	753.56	.37970	.39130	9.5849	376.21	.65526	376.74	.25430
.6	602.89	.24236	.26044	6.1332	240.74	.43823	241.14	.12898
.7	452.19	.13605	.15212	3.4492	135.40	.25745	135.65	.054241
.8	301.47	.060371	.070078	1.5327	60.170	.11827	60.294	.016116
.9	150.74	.015080	.018161	.38309	15.040	.031540	15.074	.002115



TABLE IV.- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{10}{7}$  - Concluded

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 0.06; \frac{1}{k} = 65.360$								
.1	3767.7	2.0529	1.0670	51.856	3390.1	2.8838	3390.5	2.4307
.2	3349.2	1.6191	.88320	40.971	2678.5	2.3885	2679.1	1.7385
.3	2930.7	1.2377	.70696	31.366	2050.7	1.9162	2051.3	1.1366
.4	2512.1	.90802	.54186	23.043	1506.5	1.4639	1507.2	.74549
.5	2093.5	.62987	.39198	16.001	1046.2	1.0613	1046.7	.41853
.6	1674.8	.40271	.26057	10.240	669.52	.68619	669.92	.21619
.7	1256.1	.22635	.15264	5.7596	376.59	.43029	376.84	.085502
.8	837.44	.10054	.070038	2.5597	167.36	.17814	167.49	.025518
.9	418.73	.025129	.018695	.63990	41.838	.082801	41.872	.002949
$\bar{\omega} = 0.04; \frac{1}{k} = 98.039$								
.1	8478.3	3.0646	1.0674	77.815	7629.7	4.2851	7630.1	3.7740
.2	7536.5	2.4194	.88357	61.482	6028.3	3.5506	6028.9	2.5547
.3	6594.5	1.8510	.70720	47.071	4615.4	2.8406	4616.0	1.7883
.4	5652.6	1.3592	.54184	34.582	3390.8	2.1477	3391.4	1.0944
.5	4710.5	.94330	.39206	24.014	2354.7	1.5652	2355.2	.62954
.6	3768.5	.60345	.26083	15.369	1507.0	1.0306	1507.4	.34379
.7	2826.4	.33932	.15172	8.6447	847.65	.53987	847.91	.12919
.8	1884.3	.15080	.070402	3.8419	376.73	.29562	376.85	.033238
.9	942.13	.037698	.017084	.96060	94.170	-.035879	94.213	.003346



TABLE V.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{2}{3}$ 

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 20.00; \frac{1}{k} = 0.15625$								
.1	0.013276	0.075728	-0.001620	0.074971	0.011963	0.10627	0.012003	0.091098
.2	.011753	.059899	-.001256	.058846	.009470	.087964	.009419	.064159
.3	.010233	.045794	-.001293	.044741	.007280	.070401	.007135	.042970
.4	.008685	.033608	-.001357	.032658	.005363	.053947	.005127	.027099
.5	.007252	.023157	-.001376	.022733	.003731	.039001	.003545	.015570
.6	.005816	.014728	-.001145	.014655	.002377	.025941	.002256	.007953
.7	.004480	.008118	-.000796	.008412	.001329	.015148	.001317	.003291
.8	.002985	.003579	-.000395	.003797	.000582	.006982	.000576	.000994
.9	.001580	.000715	-.000127	.000997	.000146	.001811	.000147	.000100
$\bar{\omega} = 10.00; \frac{1}{k} = 0.31250$								
.1	0.052484	0.14974	0.002152	0.16470	0.045827	0.21214	0.046215	0.18157
.2	.046532	.11782	.003395	.13193	.036208	.17570	.036100	.12725
.3	.040918	.089261	.004766	.10165	.027646	.14065	.027667	.084353
.4	.035842	.064942	.004969	.074420	.020198	.10791	.021065	.052661
.5	.030277	.045107	.004171	.051521	.014017	.078192	.014960	.030776
.6	.023881	.028636	.003340	.033072	.009043	.052079	.009211	.015905
.7	.017832	.015093	.002582	.018485	.005113	.030371	.004960	.006369
.8	.012643	.005718	.001486	.007903	.002243	.013967	.002358	.001600
.9	.006983	.001150	.000394	.001840	.000544	.003619	.000682	.000157
$\bar{\omega} = 5.00; \frac{1}{k} = 0.62500$								
.1	0.21703	0.29219	-0.051810	0.30583	0.19383	0.42038	0.19154	0.36185
.2	.19105	.22909	-.046125	.24697	.15391	.34924	.14737	.25448
.3	.16587	.17156	-.038270	.19535	.11908	.28017	.10957	.16808
.4	.14266	.12074	-.028689	.14939	.088769	.21472	.079357	.10190
.5	.12148	.078361	-.018778	.10814	.062589	.15479	.056032	.055124
.6	.10114	.045746	-.010227	.071761	.040532	.10237	.037735	.025601
.7	.079799	.023081	-.004254	.041381	.022904	.059304	.022825	.009576
.8	.055867	.009201	-.001107	.018573	.010127	.027098	.010910	.002505
.9	.028929	.002117	-.000084	.004615	.002493	.006966	.002875	.000284
$\bar{\omega} = 3.10; \frac{1}{k} = 1.0081$								
.1	0.56039	0.42723	-0.027323	0.35429	0.45804	0.65931	0.46572	0.54124
.2	.50627	.32251	-.032999	.27300	.35717	.55156	.37369	.36296
.3	.45347	.23370	-.035804	.20531	.27067	.44675	.29448	.22948
.4	.40009	.16122	-.035059	.14971	.19765	.34676	.22511	.13498
.5	.34419	.10458	-.030826	.10449	.13712	.25390	.16369	.072415
.6	.28422	.062452	-.023899	.068118	.088142	.17089	.10979	.034275
.7	.21931	.032933	-.015664	.039526	.050066	.10078	.064437	.013419
.8	.14952	.013878	-.007833	.018311	.022575	.046796	.029618	.003735
.9	.075840	.003349	-.002134	.004807	.005747	.012177	.007565	.000448



TABLE V.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{3}$  — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 2.50; \frac{1}{k} = 1.2500$								
.1	0.89052	0.48631	0.059933	0.44093	0.71385	0.75688	0.74206	0.61454
.2	.89016	.36596	.039624	.33563	.55437	.63346	.60376	.40962
.3	.72573	.26571	.022357	.24783	.41742	.51355	.47866	.25891
.4	.63840	.18465	.009132	.17618	.30205	.39928	.36521	.15322
.5	.54573	.12127	.000401	.11904	.20706	.29314	.26338	.083220
.6	.44694	.073610	-.003994	.074696	.13121	.19808	.17457	.040083
.7	.34193	.039521	-.004812	.041588	.073341	.11742	.10116	.016013
.8	.23143	.016933	-.003316	.018488	.032518	.054883	.045994	.004543
.9	.11681	.004135	-.001123	.004674	.008143	.014395	.011662	.000552
$\bar{\omega} = 1.90; \frac{1}{k} = 1.6447$								
.1	1.6221	0.57288	0.18432	0.66300	1.3220	0.88208	1.3780	0.71702
.2	1.4706	.43387	.14483	.50768	1.0290	.73725	1.1206	.48029
.3	1.3122	.31833	.10851	.37605	.77559	.59691	.88315	.30661
.4	1.1459	.22436	.076647	.26702	.56084	.46361	.66714	.18410
.5	.97140	.14984	.050169	.17918	.38337	.34021	.47528	.10183
.6	.78876	.092603	.029577	.11088	.24163	.22994	.31104	.050044
.7	.59879	.050587	.014911	.060411	.13397	.13648	.17817	.020394
.8	.40279	.021990	.005738	.026076	.058757	.063943	.080263	.005885
.9	.20251	.005422	.001186	.006356	.014518	.016832	.020232	.000724
$\bar{\omega} = 1.60; \frac{1}{k} = 1.9531$								
.1	2.3525	0.64046	0.25263	0.86449	1.9536	0.97312	2.0246	0.79577
.2	2.1254	.48829	.20296	.66667	1.5250	.81221	1.6388	.53665
.3	1.8888	.36109	.15651	.49733	1.1527	.65659	1.2841	.34546
.4	1.6424	.25673	.11470	.35551	.83567	.50913	.96390	.20943
.5	1.3863	.17302	.078647	.23995	.57242	.37301	.68234	.11702
.6	1.1212	.10787	.049169	.14916	.36130	.25174	.44392	.058092
.7	.84834	.059387	.026711	.081478	.20044	.14924	.25302	.023890
.8	.56921	.025975	.011326	.035177	.087889	.069856	.11354	.006945
.9	.28573	.006430	.002665	.008549	.021687	.018378	.028554	.000858
$\bar{\omega} = 1.30; \frac{1}{k} = 2.4038$								
.1	3.6613	0.74255	0.31915	1.1694	3.1074	1.1085	3.1928	0.91487
.2	3.2940	.57085	.25971	.90860	2.4338	.92353	2.5687	.62252
.3	2.9147	.42592	.20355	.68314	1.8460	.74503	1.9999	.40469
.4	2.5237	.30557	.15216	.49228	1.3429	.57638	1.4917	.24785
.5	2.1217	.20776	.10686	.33494	.92291	.42125	1.0497	.13989
.6	1.7100	.13058	.068743	.20982	.58433	.28359	.67935	.070103
.7	1.2901	.072385	.038624	.11544	.32507	.16771	.38553	.029065
.8	.86377	.031828	.017039	.050154	.14286	.078323	.17245	.008502
.9	.43301	.007905	.004201	.012253	.035313	.020566	.043282	.001054



TABLE V.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{2}{3}$  — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 1.10; \frac{1}{k} = 2.8409$								
.1	5.1988	0.84523	0.36012	1.4650	4.4766	1.2450	4.5708	1.0353
.2	4.6638	.65372	.29472	1.1434	3.5140	1.0359	3.6616	.70919
.3	4.1152	.49069	.23263	.86390	2.6715	.83435	2.8389	.46419
.4	3.5538	.35410	.17539	.62574	1.9480	.64432	2.1092	.28620
.5	2.9808	.24206	.12443	.43802	1.3421	.46997	1.4790	.16256
.6	2.3975	.15287	.080989	.26960	.85183	.31572	.95430	.081925
.7	1.8058	.085081	.046125	.14914	.47503	.18630	.54024	.034127
.8	1.2076	.037522	.020663	.065143	.20925	.086811	.24122	.010018
.9	.60493	.009336	.005185	.015997	.051830	.022745	.060474	.001245
$\bar{\omega} = 0.94; \frac{1}{k} = 3.3245$								
.1	7.2043	0.96211	0.38983	1.7878	6.2711	1.4017	6.3716	1.1730
.2	6.4487	.74769	.32014	1.3998	4.9306	1.1650	5.0874	.80792
.3	5.6784	.56384	.25377	1.0613	3.7550	.93709	3.9321	.53165
.4	4.8944	.40866	.19231	.77158	2.7432	.72257	2.9132	.32946
.5	4.0984	.28046	.13725	.52984	1.8935	.52616	2.0377	.18800
.6	3.2918	.17773	.089951	.33509	1.2042	.35281	1.3120	.095127
.7	2.4766	.099191	.051634	.18614	.67285	.20778	.74147	.039758
.8	1.6548	.043835	.023338	.081653	.29698	.096621	.33066	.011700
.9	.82853	.010921	.005912	.020138	.073720	.025256	.082834	.001457
$\bar{\omega} = 0.84; \frac{1}{k} = 3.7202$								
.1	9.0824	1.0597	0.40670	2.0484	7.9555	1.5335	8.0596	1.2883
.2	8.1194	.82590	.33458	1.6068	6.2609	1.2737	6.4228	.89034
.3	7.1410	.62451	.26578	1.2206	4.7729	1.0237	4.9555	.58775
.4	6.1486	.45378	.20193	.88920	3.4904	.78857	3.6655	.36530
.5	5.1437	.31213	.14455	.61195	2.4120	.57361	2.5603	.20900
.6	4.1281	.19817	.095065	.38791	1.5357	.38418	1.6465	.10600
.7	3.1039	.11077	.054784	.21600	.85912	.22596	.92965	.044381
.8	2.0730	.049008	.024870	.094984	.37965	.10494	.41430	.013079
.9	1.0376	.012218	.006333	.023485	.094350	.027394	.10374	.001629
$\bar{\omega} = 0.76; \frac{1}{k} = 4.1118$								
.1	11.150	1.1575	0.41913	2.3035	9.8119	1.6663	9.9187	1.4042
.2	9.9581	.90412	.34521	1.8092	7.7272	1.3833	7.8930	.97296
.3	8.7504	.68508	.27464	1.3763	5.8951	1.1111	6.0817	.64383
.4	7.5284	.49872	.20903	1.0042	4.3146	.85527	4.4932	.40104
.5	6.2937	.34360	.14994	.69217	2.9840	.62160	3.1353	.22990
.6	5.0482	.21846	.098846	.43951	1.9015	.41594	2.0145	.11679
.7	3.7940	.12225	.057115	.24516	1.0647	.24440	1.1367	.048965
.8	2.5331	.054131	.026007	.10801	.47098	.11337	.50631	.014443
.9	1.2677	.013502	.006646	.026753	.11716	.029562	.12675	.001801



TABLE V.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{3}$  — Continued

$x_1$	$I_5$	$I_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 0.68; \frac{1}{k} = 4.5956$								
.1	13.991	1.2796	0.43053	2.6154	12.365	1.8331	12.474	1.5494
.2	12.484	1.0016	.35498	2.0567	9.7436	1.5209	9.9129	1.0761
.3	10.961	.76041	.28278	1.5665	7.4385	1.2209	7.6288	.71371
.4	9.4235	.55453	.21555	1.1445	5.4481	.93914	5.6302	.44548
.5	7.8731	.38263	.15490	.79006	3.7709	.68201	3.9249	.25584
.6	6.3118	.24359	.10232	.50244	2.4049	.45595	2.5199	.13016
.7	4.7417	.13645	.059262	.28073	1.3478	.26765	1.4210	.054639
.8	3.1649	.060463	.027055	.12389	.59665	.12403	.63268	.016131
.9	1.5836	.015088	.006932	.030742	.14855	.032314	.15834	.002012
$\bar{\omega} = 0.62; \frac{1}{k} = 5.0403$								
.1	16.881	1.3929	0.43837	2.8996	14.964	1.9884	15.075	1.6842
.2	15.054	1.0919	.36169	2.2820	11.797	1.6492	11.969	1.1718
.3	13.210	.83007	.28837	1.7396	9.0103	1.3233	9.2031	.77839
.4	11.352	.60605	.22004	1.2722	6.6027	1.0174	6.7870	.48654
.5	9.4801	.41862	.15831	.87908	4.5725	.73839	4.7284	.27977
.6	7.5974	.26674	.10472	.55964	2.9178	.49332	3.0342	.14248
.7	5.7059	.14952	.060741	.31303	1.6362	.28937	1.7103	.059857
.8	3.8077	.066288	.027778	.13830	.72482	.13400	.76124	.017684
.9	1.9050	.016547	.007131	.034361	.18059	.034879	.19048	.002207
$\bar{\omega} = 0.58; \frac{1}{k} = 5.3879$								
.1	19.327	1.4820	0.44324	3.1204	17.163	2.1108	17.275	1.7903
.2	17.229	1.1628	.36586	2.4569	13.535	1.7503	13.708	1.2470
.3	15.113	.88472	.29184	1.8740	10.341	1.4040	10.535	.82917
.4	12.983	.64644	.22281	1.3712	7.5799	1.0791	7.7656	.51874
.5	10.839	.44681	.16043	.94811	5.2510	.78292	5.4080	.29852
.6	8.6850	.28486	.10620	.60398	3.3520	.52284	3.4692	.15221
.7	6.5215	.15974	.061660	.33807	1.8803	.30654	1.9549	.063945
.8	4.3515	.070841	.028226	.14947	.83330	.14186	.86999	.018898
.9	2.1769	.017687	.007255	.037161	.20770	.036898	.21767	.002358
$\bar{\omega} = 0.54; \frac{1}{k} = 5.7870$								
.1	22.337	1.5848	0.44781	3.3726	19.870	2.2524	19.983	1.9129
.2	19.904	1.2445	.36978	2.6568	15.673	1.8673	15.848	1.3337
.3	17.454	.94765	.29511	2.0274	11.978	1.4975	12.174	.88766
.4	14.990	.69291	.22545	1.4843	8.7826	1.1506	8.9697	.55581
.5	12.512	.47922	.16242	1.0269	6.0861	.83444	6.2442	.32008
.6	10.023	.30567	.10760	.65455	3.8863	.55703	4.0043	.16322
.7	7.5250	.17148	.062527	.36661	2.1808	.32645	2.2560	.068637
.8	5.0205	.076071	.028649	.16220	.96685	.15098	1.0038	.020291
.9	2.5114	.018996	.007372	.040358	.24110	.039228	.25112	.002533



TABLE V.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{3}$  — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 0.50; \frac{1}{k} = 6.2500$								
.1	26.097	1.7045	0.45210	3.6638	23.253	2.4176	23.367	2.0557
.2	23.247	1.3396	.37345	2.8874	18.346	2.0039	18.522	1.4347
.3	20.380	1.0208	.29817	2.2045	14.024	1.6066	14.221	.95575
.4	17.497	.74691	.22790	1.6147	10.286	1.2341	10.474	.59891
.5	14.601	.51687	.16429	1.1177	7.1299	.89469	7.2890	.34513
.6	11.695	.32984	.10892	.71285	4.5543	.59702	4.6731	.17609
.7	8.7789	.18511	.063338	.39951	2.5565	.34974	8.6321	.074087
.8	5.8564	.082139	.029048	.17687	1.1337	.16171	1.1710	.021909
.9	2.9293	.020515	.007481	.044037	.28279	.042022	.29291	.002736
$\bar{\omega} = 0.48; \frac{1}{k} = 6.5104$								
.1	28.340	1.7720	0.45412	3.8270	25.271	2.5110	25.385	2.1363
.2	25.241	1.3933	.37519	3.0166	19.940	2.0810	20.117	1.4917
.3	22.124	1.0621	.29962	2.3036	15.245	1.6683	15.442	.99413
.4	18.993	.77733	.22907	1.6878	11.182	1.2812	11.371	.62320
.5	15.848	.53807	.16517	1.1685	7.7525	.92875	7.9121	.35925
.6	12.692	.34344	.10954	.74549	4.9527	.61961	5.0718	.18334
.7	9.5266	.19278	.063722	.41792	2.7806	.36290	2.8564	.077145
.8	6.3548	.085553	.029237	.18507	1.2333	.16777	1.2707	.022819
.9	3.1785	.021369	.007531	.046096	.30771	.043558	.31783	.002848
$\bar{\omega} = 0.44; \frac{1}{k} = 7.1023$								
.1	33.777	1.9259	0.45794	4.1967	30.163	2.7241	30.278	2.3203
.2	30.074	1.5154	.37846	3.3093	23.806	2.2572	23.983	1.6215
.3	26.354	1.1560	.30234	2.5282	18.204	1.8091	18.403	1.0815
.4	22.618	.84657	.23125	1.8531	13.357	1.3890	13.547	.67847
.5	18.869	.58629	.16684	1.2836	9.2622	1.0066	9.4227	.39135
.6	15.109	.37438	.11071	.81932	5.9188	.67130	6.0386	.19983
.7	11.339	.21022	.064445	.45956	3.3239	.39300	3.4003	.024887
.8	7.5633	.093312	.029590	.20363	1.4748	.18159	1.5124	.024887
.9	3.7828	.023310	.07628	.050750	.36807	.047120	.37826	.003105
$\bar{\omega} = 0.42; \frac{1}{k} = 7.4405$								
.1	37.097	2.0141	0.45973	4.4073	33.150	2.8463	33.266	2.4256
.2	33.025	1.5854	.38000	3.4760	26.166	2.3583	26.344	1.6959
.3	28.936	1.2097	.30362	2.6560	20.011	1.8899	20.210	1.1316
.4	24.831	.88617	.23228	1.9472	14.684	1.4509	14.874	.71010
.5	20.713	.61387	.16762	1.3491	10.184	1.0512	10.345	.40971
.6	16.584	.39206	.11126	.86133	6.5087	.70097	6.6288	.20926
.7	12.446	.22018	.064784	.48324	3.6558	.41028	3.7323	.088112
.8	8.3011	.097747	.029756	.21418	1.6223	.18952	1.6599	.026068
.9	4.1517	.024420	.007678	.053384	.40491	.049210	.41515	.003258



TABLE V.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{3}$  — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 0.40; \frac{1}{k} = 7.8125$								
.1	40.927	2.1113	0.46145	4.6385	36.597	2.9811	36.712	2.5418
.2	36.430	1.6624	.38147	3.6589	28.889	2.4698	29.067	1.7779
.3	31.915	1.2689	.30485	2.7963	22.096	1.9790	22.296	1.1867
.4	27.385	.92978	.23327	2.0505	16.215	1.5191	16.406	.74493
.5	22.841	.64421	.16837	1.4210	11.247	1.1005	11.409	.42992
.6	18.286	.41153	.11179	.90740	7.1893	.73373	7.3098	.21963
.7	13.723	.23115	.065114	.50921	4.0386	.42941	4.1153	.092488
.8	9.1523	.10263	.029918	.22575	1.7924	.19833	1.8301	.027370
.9	4.5773	.025640	.007720	.056280	.44745	.051477	.45771	.003418
$\bar{\omega} = 0.38; \frac{1}{k} = 8.2237$								
.1	45.377	2.2188	0.46308	4.8935	40.601	3.1305	40.718	2.6706
.2	40.386	1.7477	.38287	3.8607	32.053	2.5933	32.232	1.8686
.3	35.377	1.3344	.30602	2.9510	24.518	2.0778	24.719	1.2477
.4	30.352	.97800	.23420	2.1643	17.995	1.5948	18.187	.78344
.5	25.314	.67778	.16908	1.5002	12.483	1.1552	12.645	.45227
.6	20.265	.43305	.11229	.95818	7.9802	.77005	8.1010	.23109
.7	15.206	.24327	.065424	.53783	4.4835	.45058	4.5604	.097343
.8	10.141	.10802	.030075	.23849	1.9901	.20812	2.0280	.028813
.9	5.0718	.026989	.007758	.059480	.49683	.053944	.50716	.003603
$\bar{\omega} = 0.36; \frac{1}{k} = 8.6806$								
.1	50.590	2.3386	0.46464	5.1762	45.292	3.2969	45.409	2.8138
.2	45.019	1.8426	.38420	4.0844	35.759	2.7309	35.939	1.9696
.3	39.431	1.4072	.30713	3.1226	27.356	2.1878	27.557	1.3155
.4	33.827	1.0316	.23510	2.2905	20.080	1.6790	20.272	.82630
.5	28.210	.71509	.16976	1.5880	13.931	1.2160	14.093	.47712
.6	22.581	.45697	.11277	1.0145	8.9068	.81049	9.0278	.24382
.7	16.944	.25674	.065719	.56955	5.0046	.47416	5.0817	.10272
.8	11.300	.11401	.030209	.25263	2.2218	.21885	2.2597	.030403
.9	5.6510	.028488	.007802	.063020	.55480	.056800	.56508	.003800
$\bar{\omega} = 0.34; \frac{1}{k} = 9.1912$								
.1	56.750	2.4726	0.46611	5.4917	50.835	3.4832	50.952	2.9742
.2	50.495	1.9487	.38546	4.3339	40.139	2.8851	40.319	2.0826
.3	44.222	1.4887	.30818	3.3139	30.709	2.3111	30.910	1.3914
.4	37.934	1.0916	.23594	2.4313	22.543	1.7734	22.736	.87423
.5	31.632	.75681	.17041	1.6858	15.642	1.2842	15.804	.50192
.6	25.319	.48371	.11322	1.0772	10.002	.85582	10.123	.25810
.7	18.997	.27180	.066001	.60489	5.6204	.50062	5.6977	.10874
.8	12.669	.12071	.030350	.26836	2.4954	.23107	2.5334	.032200
.9	6.3355	.030163	.007839	.066970	.62330	.059941	.63352	.004026



TABLE V.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{3}$  — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 0.32; \frac{1}{k} = 9.7656$								
.1	64.100	2.6235	0.46750	5.8459	57.450	3.6933	57.567	3.1550
.2	57.028	2.0683	.38666	4.6141	45.365	3.0589	45.546	2.2098
.3	49.939	1.5804	.30918	3.5286	34.710	2.4501	34.912	1.4770
.4	42.834	1.1591	.23674	2.5892	25.483	1.8799	25.676	.92817
.5	35.716	.80377	.17101	1.7957	17.683	1.3612	17.846	.53620
.6	28.586	.51380	.11365	1.1476	11.308	.90699	11.430	.27409
.7	21.447	.28874	.066263	.64455	6.3553	.53043	6.4327	.11552
.8	14.302	.12824	.030485	.28601	2.8220	.24487	2.8601	.034186
.9	7.1522	.032048	.007869	.071400	.70490	.063361	.71520	.004269
$\bar{\omega} = 0.30; \frac{1}{k} = 10.417$								
.1	72.969	2.7948	0.46882	6.2467	65.432	3.9319	65.549	3.3600
.2	64.912	2.2039	.38778	4.9311	51.672	3.2563	51.853	2.3544
.3	56.837	1.6844	.31011	3.7716	39.538	2.6080	39.741	1.5739
.4	48.747	1.2357	.23750	2.7679	29.031	2.0009	29.224	.98936
.5	40.643	.85701	.17159	1.9199	20.147	1.4486	20.310	.57166
.6	32.528	.54791	.11405	1.2272	12.885	.96514	13.006	.29231
.7	24.404	.30794	.066516	.68938	7.2421	.56439	7.3196	.12320
.8	16.273	.13678	.030602	.30596	3.2161	.26042	3.2543	.036478
.9	8.1377	.034184	.007912	.076370	.80340	.067530	.81375	.004553
$\bar{\omega} = 0.28; \frac{1}{k} = 11.161$								
.1	83.805	2.9908	0.47004	6.7041	75.184	4.2051	75.302	3.5949
.2	74.544	2.3591	.38883	5.2927	59.377	3.4823	59.559	2.5196
.3	65.266	1.8034	.31099	4.0487	45.438	2.7888	45.641	1.6850
.4	55.971	1.3232	.23820	2.9717	33.365	2.1394	33.558	1.0594
.5	46.663	.91787	.17212	2.0616	23.157	1.5487	23.320	.61223
.6	37.344	.58691	.11442	1.3180	14.811	1.0316	14.933	.31308
.7	28.016	.32990	.066743	.74051	8.3257	.60312	8.4033	.13197
.8	18.681	.14654	.030715	.32870	3.6977	.27829	3.7359	.039088
.9	9.3417	.036625	.007939	.082070	.92370	.072109	.93415	.004888
$\bar{\omega} = 0.26; \frac{1}{k} = 12.019$								
.1	97.238	3.2173	0.47118	7.2310	87.273	4.5208	87.391	3.8662
.2	86.484	2.5383	.38981	5.7094	68.929	3.7435	69.111	2.7104
.3	75.713	1.9408	.31180	4.3679	52.751	2.9977	52.954	1.8130
.4	64.926	1.4243	.23885	3.2064	38.738	2.2995	38.931	1.1401
.5	54.126	.98813	.17262	2.2247	26.887	1.6644	27.051	.65904
.6	43.314	.63190	.11478	1.4225	17.199	1.1087	17.321	.33711
.7	32.494	.35523	.066963	.79936	9.6688	.64809	9.7466	.14214
.8	21.666	.15781	.030829	.35490	4.2945	.29904	4.3329	.042077
.9	10.834	.039442	.007964	.088630	1.0729	.077435	1.0834	.005272

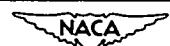


TABLE V.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{2}{3}$  — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 0.24; \frac{1}{k} = 13.021$								
.1	114.17	3.4817	0.47225	7.84448	102.51	4.8899	102.63	4.1831
.2	101.53	2.7475	.39073	6.1947	80.967	4.0489	81.149	2.9335
.3	88.880	2.1012	.31257	4.7397	61.967	3.2422	62.171	1.9626
.4	76.212	1.5423	.23947	3.4798	45.509	2.4867	45.703	1.2343
.5	63.531	1.0701	.17310	2.4147	31.590	1.7999	31.754	.71365
.6	50.838	.68442	.11512	1.5442	20.208	1.1989	20.331	.36510
.7	38.137	.38478	.067169	.86787	11.361	.70066	11.440	.15392
.8	25.428	.17095	.030930	.38538	5.0469	.32326	5.0854	.045575
.9	12.715	.042728	.008002	.096260	1.2610	.083796	1.2715	.005709
$\bar{\omega} = 0.22; \frac{1}{k} = 14.205$								
.1	135.92	3.7946	0.47323	8.5693	122.09	5.3266	122.20	4.5581
.2	120.87	2.9950	.39157	6.7674	96.435	4.4104	96.618	3.1973
.3	105.80	2.2909	.31327	5.1785	73.810	3.5313	74.014	2.1394
.4	90.715	1.6817	.24003	3.8024	54.210	2.7083	54.404	1.3459
.5	75.616	1.1671	.17352	2.6389	37.632	1.9601	37.796	.77827
.6	60.506	.74650	.11542	1.6877	24.075	1.3054	24.198	.39820
.7	45.388	.41972	.067362	.94867	13.536	.76295	13.615	.16791
.8	30.262	.18648	.031016	.42131	6.0134	.35185	6.0522	.049676
.9	15.132	.046612	.008028	.10524	1.5025	.091236	1.5132	.006191
$\bar{\omega} = 0.20; \frac{1}{k} = 15.625$								
.1	164.52	4.1704	0.47413	9.4376	147.83	5.8514	147.94	5.0086
.2	146.29	3.2922	.39233	7.4538	116.77	4.8446	116.96	3.5140
.3	128.04	2.5186	.31391	5.7042	89.381	3.8788	89.586	2.3519
.4	109.78	1.8492	.24054	4.1888	65.650	2.9746	65.845	1.4798
.5	91.506	1.2834	.17391	2.9074	45.577	2.1526	45.741	.85583
.6	73.218	.82100	.11569	1.8597	29.160	1.4335	29.282	.43793
.7	54.921	.46165	.067525	1.0455	16.397	.83767	16.475	.18467
.8	36.618	.20512	.031098	.46436	7.2849	.38632	7.3233	.054693
.9	18.310	.051272	.008048	.11601	1.8205	.10014	1.8310	.006837
$\bar{\omega} = 0.18; \frac{1}{k} = 17.361$								
.1	203.18	4.6301	0.47493	10.498	182.62	6.4936	182.73	5.5596
.2	180.65	3.6557	.39302	8.2917	144.26	5.3760	144.44	3.9010
.3	158.11	2.7971	.31448	6.3460	110.43	4.3040	110.63	2.6118
.4	135.55	2.0539	.24100	4.6606	81.112	3.3006	81.307	1.6436
.5	112.98	1.4257	.17426	3.2351	56.314	2.3882	56.479	.95063
.6	90.398	.91208	.11593	2.0695	36.032	1.5902	36.154	.48645
.7	67.807	.51289	.067672	1.1636	20.262	.92908	20.340	.20519
.8	45.208	.22790	.031197	.51687	9.0027	.42888	9.0413	.060798
.9	22.605	.056969	.008075	.12915	2.2502	.11113	2.2605	.007592



TABLE V.-- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{3}$  - Concluded

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 0.16; \frac{1}{k} = 19.531$								
.1	257.22	5.2051	0.47566	11.822	231.25	7.2975	231.37	6.2487
.2	228.69	4.1104	.39365	9.3380	182.69	6.0414	182.87	4.3855
.3	200.14	3.1454	.31501	7.1473	139.85	4.8366	140.05	2.9363
.4	171.58	2.3099	.24144	5.2495	102.73	3.7089	102.92	1.8483
.5	143.00	1.6035	.17458	3.6442	71.325	2.6834	71.490	1.0692
.6	114.42	1.0260	.11616	2.3315	45.639	1.7866	45.762	.54697
.7	85.820	.57696	.067838	1.3110	25.666	1.0443	25.745	.23072
.8	57.217	.25638	.031280	.58241	11.405	.48207	11.443	.068299
.9	28.610	.064090	.008124	.14553	2.8501	.12541	2.8610	.008531
$\bar{\omega} = 0.08; \frac{1}{k} = 39.063$								
.1	1029.7	10.389	0.477771	23.709	926.48	14.550	926.60	12.467
.2	915.33	8.2076	.39540	18.731	732.01	12.044	732.19	8.7515
.3	800.96	6.2831	.31644	14.340	560.42	9.6394	560.62	5.8657
.4	686.56	4.6157	.24262	10.535	411.72	7.3920	411.91	3.6916
.5	572.16	3.2050	.17547	7.3153	285.90	5.3469	286.07	2.1365
.6	457.74	2.0511	.11680	4.6814	182.97	3.5599	183.09	1.0928
.7	343.31	1.1537	.068175	2.6330	102.91	2.0777	102.99	.46245
.8	228.88	.51272	.031528	1.1701	45.737	.96212	45.775	.13650
.9	114.44	.12818	.008160	.29251	11.432	.24898	11.444	.016962
$\bar{\omega} = 0.06; \frac{1}{k} = 52.083$								
.1	1830.8	13.848	0.47801	31.624	1647.5	19.391	1647.6	16.621
.2	1627.4	10.941	.39565	24.986	1301.7	16.051	1301.9	11.667
.3	1424.0	8.3760	.31668	19.129	996.56	12.848	996.77	7.8217
.4	1220.6	6.1534	.24270	14.053	732.15	9.8462	732.35	4.9246
.5	1017.2	4.2730	.17565	9.7589	508.43	7.1277	508.59	2.8458
.6	813.78	2.7346	.11683	6.2454	325.38	4.7404	325.51	1.4616
.7	610.34	1.5382	.068181	3.5128	183.02	2.7660	183.10	.61495
.8	406.90	.68361	.031517	1.5612	81.340	1.2798	81.379	.18220
.9	203.45	.17090	.008099	.39028	20.334	.32821	20.345	.022456
$\bar{\omega} = 0.04; \frac{1}{k} = 78.125$								
.1	4119.6	20.768	0.47817	47.450	3707.4	29.073	3707.5	24.931
.2	3661.9	16.409	.39581	37.491	2929.3	24.066	2929.5	17.485
.3	3204.2	12.562	.31679	28.703	2242.7	19.261	2242.9	11.735
.4	2746.5	9.2293	.24288	21.088	1647.7	14.769	1647.9	7.3992
.5	2288.8	6.4091	.17564	14.644	1144.2	10.679	1144.4	4.2729
.6	1831.0	4.1017	.11668	9.3719	732.28	7.0911	732.41	2.1841
.7	1373.3	2.3072	.068115	5.2715	411.90	4.1390	411.98	.92238
.8	915.52	1.0254	.031655	2.3428	183.06	1.9281	183.10	.27139
.9	457.76	.25636	.007977	.58570	45.764	.48194	45.776	.033923



TABLE VI.— VALUES OF FUNCTIONS FOR ATTERRON FLUTTER CALCULATIONS  
FOR M = 2

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 20.00; \frac{1}{k} = 0.13333$								
.1	0.008008	0.053900	0.000011	0.054691	0.007136	0.075575	0.007200	0.064753
.2	.007126	.042572	.000090	.043111	.005635	.062553	.005700	.045473
.3	.006264	.032611	-.000072	.033001	.004313	.050066	.004408	.030508
.4	.005320	.023960	-.000125	.024353	.003159	.038373	.003181	.019241
.5	.004429	.016610	-.000115	.017084	.002182	.027757	.002200	.011133
.6	.003507	.010578	.000041	.011059	.001385	.018477	.001370	.005684
.7	.002687	.005883	.000112	.006253	.000772	.010799	.000795	.002373
.8	.001786	.002592	.000132	.002764	.000341	.004980	.000346	.000707
.9	.000937	.000580	.000035	.000658	.000082	.001291	.000090	.000079
$\bar{\omega} = 10.00; \frac{1}{k} = 0.26667$								
.1	0.031730	0.10754	0.004157	0.11316	0.028525	0.15163	0.028173	0.12994
.2	.028058	.084624	.004352	.090004	.022595	.12557	.021927	.090948
.3	.024707	.064343	.004580	.068886	.017334	.10053	.016895	.060479
.4	.021498	.047062	.004146	.050078	.012746	.077110	.012725	.037963
.5	.018011	.032672	.003074	.034342	.008889	.055836	.008896	.022089
.6	.014285	.020733	.002018	.021909	.005760	.037189	.005543	.011305
.7	.010763	.011233	.001316	.012362	.003295	.021703	.003071	.004611
.8	.007498	.004638	.000756	.005438	.001479	.009976	.001438	.001262
.9	.003989	.001067	.000229	.001305	.000368	.002575	.000393	.000143
$\bar{\omega} = 5.00; \frac{1}{k} = 0.53333$								
.1	0.12921	0.21131	-0.033053	0.22476	0.11515	0.30129	0.11407	0.25822
.2	.11428	.16586	-.028964	.18096	.091172	.25000	.088683	.18088
.3	.099822	.12522	-.023878	.14233	.070208	.20048	.066984	.11983
.4	.086103	.089867	-.018000	.10813	.052047	.15382	.049137	.073783
.5	.072989	.060377	-.012007	.077860	.036529	.11118	.034705	.041243
.6	.059983	.037100	-.006765	.051572	.023613	.073831	.023003	.020189
.7	.046447	.019977	-.002963	.029828	.013375	.042971	.013541	.008103
.8	.031908	.008532	-.000835	.013493	.005956	.019720	.006291	.002292
.9	.016297	.002074	-.000076	.003392	.001483	.005084	.001623	.000277
$\bar{\omega} = 2.70; \frac{1}{k} = 0.98765$								
.1	0.45202	0.36034	0.008117	0.31821	0.37805	0.52993	0.38713	0.44287
.2	.40754	.27858	.001801	.24605	.29554	.44098	.31152	.30369
.3	.36244	.20840	-.003148	.18468	.22400	.35515	.24389	.19822
.4	.31610	.14953	-.006315	.13345	.16308	.27413	.18367	.12150
.5	.26802	.10146	-.007563	.091570	.11240	.19974	.13081	.068456
.6	.21789	.063568	-.007066	.058248	.071532	.13392	.085735	.034186
.7	.16569	.035110	-.005291	.032785	.040102	.078794	.049228	.014115
.8	.11164	.015387	-.002943	.014684	.017807	.036565	.022228	.004113
.9	.056191	.003813	-.000880	.003725	.004459	.009527	.005613	.000509



TABLE VI.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR M = 2 — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3^1$	$N_4^1$	$N_5$	$N_6$
$\bar{\omega} = 2.10; \frac{1}{k} = 1.2698$								
.1	0.77032	0.44293	0.063527	0.43561	0.64868	0.64729	0.66645	0.54167
.2	.69400	.34357	.048570	.33683	.50750	.53821	.53675	.37252
.3	.61556	.25829	.035048	.25222	.38464	.43311	.41912	.24437
.4	.53462	.18647	.023507	.18123	.27974	.33407	.31394	.15079
.5	.45099	.12742	.014307	.12318	.19234	.24329	.22200	.085625
.6	.36469	.080400	.007588	.077276	.12194	.16311	.14437	.043110
.7	.27595	.044698	.003243	.042701	.068002	.096000	.082291	.017935
.8	.18519	.019693	.000931	.018698	.029991	.044590	.036937	.005259
.9	.092970	.004897	.000094	.004623	.007450	.011635	.009291	.000653
$\bar{\omega} = 1.60; \frac{1}{k} = 1.6667$								
.1	1.3660	0.55897	0.11615	0.62975	1.1712	0.80780	1.1969	0.67966
.2	1.2265	.43581	.093333	.48991	.91877	.67086	.95971	.47001
.3	1.0834	.32950	.071999	.36894	.69811	.53911	.74518	.31027
.4	.93678	.23930	.052780	.26641	.50884	.41521	.55465	.19274
.5	.78675	.16448	.036199	.18173	.35049	.30192	.38967	.11019
.6	.63359	.10435	.022633	.11421	.22246	.20211	.25187	.055832
.7	.47773	.058281	.012294	.063082	.12409	.11879	.14281	.023356
.8	.31973	.025769	.005209	.027538	.054699	.055115	.063845	.006877
.9	.16025	.006422	.001224	.006766	.013563	.014371	.016018	.000856
$\bar{\omega} = 1.30; \frac{1}{k} = 2.0513$								
.1	2.1039	0.67296	0.14662	0.82491	1.8278	0.96461	1.8580	0.81527
.2	1.8840	.52656	.11935	.64463	1.4367	.80041	1.4842	.56606
.3	1.6598	.39953	.093573	.48773	1.0939	.64256	1.1479	.37521
.4	1.4314	.29117	.069978	.35385	.79894	.49432	.85112	.23402
.5	1.1992	.20077	.049166	.24250	.55141	.35899	.59582	.13429
.6	.96373	.12772	.031641	.15307	.35065	.23999	.38390	.068268
.7	.72539	.071505	.017785	.084889	.19594	.14086	.21711	.028637
.8	.48485	.031670	.007849	.037183	.086503	.065263	.096868	.008450
.9	.24281	.007901	.001935	.009160	.021482	.016993	.024274	.001054
$\bar{\omega} = 1.10; \frac{1}{k} = 2.4242$								
.1	2.9682	0.78480	0.16521	1.0136	2.6012	1.1187	2.6341	0.94853
.2	2.6533	.61552	.13524	.79437	2.0473	.92774	2.0987	.66038
.3	2.3335	.46809	.10678	.60286	1.5609	.74427	1.6191	.43888
.4	2.0092	.34184	.080531	.43877	1.1417	.57210	1.1976	.27441
.5	1.6809	.23616	.057152	.30167	.78908	.41511	.83660	.15782
.6	1.3492	.15048	.037213	.19106	.50251	.27724	.53806	.080384
.7	1.0145	.084357	.021202	.10630	.28121	.16256	.30383	.033773
.8	.67759	.037399	.009502	.046713	.12431	.075234	.13542	.009977
.9	.33918	.009336	.002385	.011542	.030905	.019566	.033911	.001245



TABLE VI.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR M = 2 — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 0.90; \frac{1}{k} = 2.9630$								
.1	4.4737	0.94798	0.18173	1.2828	3.9522	1.3442	3.9875	1.1433
.2	3.9923	.74514	.14937	1.0079	3.1143	1.1141	3.1692	.79802
.3	3.5056	.56783	.11854	.76704	2.3774	.89322	2.4393	.53164
.4	3.0142	.41546	.089945	.55989	1.7412	.68608	1.8005	.33314
.5	2.5186	.28749	.064290	.38613	1.2051	.49737	1.2554	.19197
.6	2.0193	.18345	.042209	.24532	.76858	.33187	.80612	.097943
.7	1.5172	.10295	.024276	.13693	.43073	.19438	.45463	.041205
.8	1.0127	.045679	.010996	.060371	.19070	.089861	.20244	.012184
.9	.50674	.011408	.002794	.014966	.047488	.023341	.050667	.001521
$\bar{\omega} = 0.80; \frac{1}{k} = 3.3333$								
.1	5.6843	1.0609	0.18905	1.4657	5.0401	1.5007	5.0764	1.2783
.2	5.0687	.83477	.15564	1.1529	3.9736	1.2436	4.0300	.89330
.3	4.4477	.63672	.12375	.87845	3.0351	.99668	3.0986	.59576
.4	3.8219	.46625	.094125	.64205	2.2243	.76527	2.2850	.37369
.5	3.1917	.32287	.067464	.44340	1.5405	.55456	1.5919	.21553
.6	2.5579	.20615	.044433	.28211	.98311	.36986	1.0215	.11004
.7	1.9211	.11575	.025648	.15770	.55134	.21653	.57580	.046321
.8	1.2820	.051375	.011665	.069637	.24427	.10005	.25629	.013703
.9	.64137	.012833	.002976	.017292	.060870	.025976	.064131	.001711
$\bar{\omega} = 0.74; \frac{1}{k} = 3.6036$								
.1	6.6579	1.1437	0.19310	1.5982	5.9153	1.6156	5.9522	1.3772
.2	5.9343	.90037	.15911	1.2579	4.6651	1.3385	4.7223	.96308
.3	5.2053	.68711	.12664	.95910	3.5644	1.0726	3.6288	.64269
.4	4.4713	.50338	.096441	.70150	2.6131	.82338	2.6746	.40335
.5	3.7329	.34872	.069224	.48483	1.8104	.59654	1.8625	.23274
.6	2.9908	.22273	.045667	.30872	1.1558	.39775	1.1947	.11888
.7	2.2458	.12509	.026410	.17272	.64844	.23279	.67322	.050056
.8	1.4985	.055532	.012037	.076335	.28741	.10753	.29959	.014811
.9	.74962	.013873	.003079	.018971	.071640	.027908	.074955	.001850
$\bar{\omega} = 0.70; \frac{1}{k} = 3.8095$								
.1	7.4507	1.2068	0.19565	1.6986	6.6283	1.7033	6.6655	1.4528
.2	6.6392	.95044	.16129	1.3375	5.2283	1.4111	5.2861	1.0163
.3	5.8221	.72556	.12846	1.0202	3.9956	1.1306	4.0605	.67850
.4	5.0000	.53170	.097902	.74655	2.9298	.86781	2.9919	.42597
.5	4.1735	.36843	.070334	.51621	2.0303	.62863	2.0828	.24587
.6	3.3434	.23537	.046447	.32887	1.2965	.41908	1.3357	.12561
.7	2.5102	.13221	.026891	.18410	.72757	.24523	.75254	.052903
.8	1.6747	.058700	.012272	.081408	.32257	.11325	.33484	.015656
.9	.83775	.014666	.003143	.020245	.080430	.029388	.083768	.001955



TABLE VI.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS  
FOR M = 2 — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3^*$	$N_4^*$	$N_5$	$N_6$
$\bar{\omega} = 0.64; \frac{1}{k} = 4.1667$								
.1	8.9304	1.3166	0.19925	1.8721	7.9591	1.8559	7.9969	1.5841
.2	7.9546	1.0374	.16437	1.4749	6.2798	1.5373	6.3383	1.1089
.3	6.9732	.79233	.13103	1.1257	4.8005	1.2316	4.8662	.74071
.4	5.9867	.58087	.099962	.82425	3.5211	.94512	3.5839	.46525
.5	4.9958	.40264	.071900	.57033	2.4409	.68449	2.4940	.26865
.6	4.0012	.25730	.047546	.36361	1.5592	.45620	1.5989	.13730
.7	3.0036	.14456	.027571	.20370	.87531	.26688	.90056	.057841
.8	2.0037	.064194	.012604	.090146	.38822	.12321	.40063	.017121
.9	1.0022	.016040	.003234	.022434	.096840	.031958	.10022	.002139
$\bar{\omega} = 0.58; \frac{1}{k} = 4.5977$								
.1	10.893	1.4494	0.20257	2.0803	9.7246	2.0407	9.7629	1.7431
.2	9.6992	1.1426	.16722	1.6397	7.6746	1.6902	7.7338	1.2209
.3	8.4998	.87303	.13340	1.2522	5.8684	1.3538	5.9348	.81592
.4	7.2953	.64027	.10186	.91742	4.3056	1.0388	4.3690	.51272
.5	6.0863	.44396	.073344	.63520	2.9856	.75218	3.0392	.29618
.6	4.8736	.28378	.048561	.40524	1.9078	.50121	1.9478	.15142
.7	3.6579	.15947	.028198	.22718	1.0714	.29314	1.0969	.063804
.8	2.4399	.070826	.012911	.10061	.47534	.13530	.48787	.018889
.9	1.2203	.017699	.003319	.025058	.11862	.035094	.12203	.002360
$\bar{\omega} = 0.54; \frac{1}{k} = 4.9383$								
.1	12.580	1.5545	0.20461	2.2440	11.243	2.1871	11.281	1.8690
.2	11.199	1.2258	.16896	1.7694	8.8740	1.8113	8.9336	1.3095
.3	9.8123	.93686	.13485	1.3516	6.7866	1.4507	6.8534	.87542
.4	8.4203	.68724	.10303	.99064	4.9801	1.1130	5.0440	.55027
.5	7.0239	.47662	.074233	.68616	3.4540	.80581	3.5080	.31794
.6	5.6237	.30471	.049185	.43793	2.2075	.53686	2.2478	.16257
.7	4.2204	.17125	.028583	.24562	1.2400	.31394	1.2656	.068516
.8	2.8149	.076067	.013098	.10882	.55024	.14486	.56287	.020287
.9	1.4078	.019010	.003370	.027117	.13733	.037550	.14078	.002535
$\bar{\omega} = 0.50; \frac{1}{k} = 5.3333$								
.1	14.688	1.6766	0.20652	2.4333	13.140	2.3573	13.178	2.0153
.2	13.073	1.3225	.17060	1.9192	10.373	1.9521	10.433	1.4125
.3	11.452	1.0110	.13622	1.4666	7.9341	1.5634	8.0013	.94452
.4	9.8260	.74177	.10413	1.0752	5.8231	1.1993	5.8874	.59385
.5	8.1953	.51453	.075069	.74503	4.0394	.86820	4.0937	.34320
.6	6.5608	.32900	.049772	.47569	2.5822	.57836	2.6227	.17552
.7	4.9233	.18493	.028947	.26690	1.4507	.33816	1.4765	.073984
.8	3.2835	.082147	.013278	.11831	.64390	.15603	.65659	.021908
.9	1.6421	.020530	.003419	.029494	.16076	.040455	.16420	.002738



TABLE VI.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS  
FOR M = 2 — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3^*$	$N_4^*$	$N_5$	$N_6$
$\bar{\omega} = 0.46; \frac{1}{k} = 5.7971$								
.1	17.370	1.8201	0.20829	2.6548	15.553	2.5575	15.592	2.1872
.2	15.457	1.4360	.17212	2.0945	12.280	2.1177	12.340	1.5335
.3	13.538	1.0980	.13749	1.6010	9.3939	1.6959	9.4616	1.0257
.4	11.614	.80581	.10514	1.1742	6.8956	1.3008	6.9602	.64505
.5	9.6854	.55905	.075842	.81384	4.7841	.94158	4.8387	.37287
.6	7.7529	.35751	.050317	.51981	3.0588	.62717	3.0995	.19073
.7	5.8173	.20098	.029284	.29177	1.7187	.36665	1.7447	.080403
.8	3.8795	.089284	.013442	.12938	.76302	.16915	.77580	.023811
.9	1.9401	.022315	.003465	.032269	.19052	.043849	.19401	.002976
$\bar{\omega} = 0.42; \frac{1}{k} = 6.3492$								
.1	20.855	1.9912	0.20993	2.9177	18.688	2.7961	18.728	2.3922
.2	18.554	1.5713	.17352	2.3025	14.757	2.3152	14.818	1.6777
.3	16.248	1.2018	.13865	1.7604	11.291	1.8539	11.359	1.1224
.4	13.937	.88209	.10608	1.2915	8.2891	1.4219	8.3540	.70604
.5	11.621	.61207	.076555	.89543	5.7518	1.0291	5.8066	.40820
.6	9.3016	.39147	.050818	.57211	3.6781	.68539	3.7190	.20883
.7	6.9789	.22009	.029594	.32123	2.0671	.40063	2.0931	.088047
.8	4.6538	.097782	.013594	.14250	.91784	.18479	.93067	.026077
.9	2.3273	.024440	.003507	.035554	.22923	.047888	.23272	.003258
$\bar{\omega} = 0.40; \frac{1}{k} = 6.6667$								
.1	23.002	2.0896	0.21069	3.0685	20.621	2.9335	20.660	2.5102
.2	20.463	1.6492	.17418	2.4218	16.284	2.4289	16.344	1.7606
.3	17.918	1.2614	.13920	1.8519	12.459	1.9449	12.528	1.1781
.4	15.368	.92597	.10652	1.3587	9.1478	1.4916	9.2128	.74113
.5	12.814	.64257	.076888	.94221	6.3481	1.0795	6.4030	.42852
.6	10.256	.41100	.051051	.60209	4.0597	.71892	4.1007	.21924
.7	7.6945	.23108	.029739	.33812	2.2817	.42020	2.3078	.092442
.8	5.1310	.10267	.013665	.15002	1.0132	.19380	1.0261	.027380
.9	2.5659	.025662	.003526	.037436	.25309	.050217	.25658	.003422
$\bar{\omega} = 0.38; \frac{1}{k} = 7.0175$								
.1	25.496	2.1984	0.21142	3.2350	22.866	3.0855	22.905	2.6407
.2	22.681	1.7353	.17480	2.5534	18.057	2.5547	18.118	1.8524
.3	19.859	1.3274	.13972	1.9528	13.818	2.0455	13.886	1.2396
.4	17.032	.97448	.10694	1.4330	10.146	1.5687	10.211	.77992
.5	14.200	.67628	.077206	.99382	7.0410	1.1353	7.0961	.45099
.6	11.365	.43259	.051275	.63516	4.5031	.75602	4.5442	.23076
.7	8.5262	.24323	.029878	.35675	2.5312	.44186	2.5573	.097301
.8	5.6854	.10807	.013733	.15831	1.1241	.20379	1.1370	.028818
.9	2.8431	.027012	.003545	.039514	.28079	.052804	.28430	.003602



TABLE VI.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR M = 2 — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3^*$	$N_4^*$	$N_5$	$N_6$
$\bar{\omega} = 0.36; \frac{1}{k} = 7.4074$								
.1	28.418	2.3194	0.21211	3.4197	25.495	3.2545	25.535	2.7857
.2	25.278	1.8310	.17539	2.6995	20.135	2.6946	20.196	1.9544
.3	22.132	1.4007	.14021	2.0647	15.408	2.1574	15.477	1.3080
.4	18.980	1.0284	.10733	1.5153	11.314	1.6545	11.380	.82303
.5	15.824	.71374	.077509	1.0511	7.8526	1.1973	7.9078	.47595
.6	12.663	.45657	.051489	.67184	5.0226	.79729	5.0637	.24355
.7	9.5002	.25673	.030010	.37741	2.8233	.46596	2.8496	.10270
.8	6.3348	.11407	.013798	.16750	1.2539	.21488	1.2669	.030420
.9	3.1678	.028513	.003563	.041815	.31328	.055680	.31677	.003802
$\bar{\omega} = 0.34; \frac{1}{k} = 7.8431$								
.1	31.871	2.4547	0.21277	3.6259	28.603	3.4435	28.643	2.9480
.2	28.347	1.9380	.17596	2.8625	22.590	2.8510	22.652	2.0684
.3	24.817	1.4827	.14068	2.1897	17.288	2.2826	17.357	1.3845
.4	21.282	1.0887	.10771	1.6072	12.695	1.7504	12.761	.87123
.5	17.742	.75561	.077795	1.1149	8.8116	1.2667	8.8669	.50387
.6	14.198	.48339	.051689	.71276	5.6363	.84342	5.6776	.25785
.7	10.651	.27181	.030133	.40046	3.1686	.49289	3.1948	.10873
.8	7.1021	.12078	.013859	.17776	1.4074	.22729	1.4203	.032207
.9	3.5514	.030190	.003579	.044383	.35164	.058880	.35514	.004025
$\bar{\omega} = 0.30; \frac{1}{k} = 8.8889$								
.1	40.963	2.7797	0.21397	4.1198	36.785	3.8977	36.825	3.3376
.2	36.429	2.1949	.17699	3.2530	29.055	3.2268	29.117	2.3423
.3	31.889	1.6795	.14154	2.4889	22.238	2.5833	22.307	1.5681
.4	27.343	1.2333	.10840	1.8272	16.332	1.9809	16.398	.98694
.5	22.793	.85614	.078322	1.2678	11.337	1.4334	11.392	.57087
.6	18.239	.54774	.052060	.81071	7.2525	.95435	7.2939	.29216
.7	13.682	.30803	.030363	.45561	4.0777	.55766	4.1040	.12322
.8	9.1225	.13687	.013971	.20229	1.8114	.25713	1.8244	.036502
.9	4.5617	.034215	.003611	.050523	.45260	.066603	.45616	.004562
$\bar{\omega} = 0.28; \frac{1}{k} = 9.5238$								
.1	47.038	2.9771	0.21452	4.4191	42.252	4.1736	42.292	3.5743
.2	41.829	2.3510	.17746	3.4897	33.375	3.4552	33.437	2.5087
.3	36.613	1.7991	.14193	2.6702	25.545	2.7661	25.614	1.6797
.4	31.393	1.3212	.10871	1.9605	18.762	2.1210	18.827	1.0572
.5	26.168	.91718	.078561	1.3605	13.024	1.5347	13.080	.61155
.6	20.939	.58683	.052228	.87004	8.3324	1.0218	8.3738	.31301
.7	15.707	.33001	.030467	.48901	4.6851	.59703	4.7115	.13201
.8	10.472	.14665	.014021	.21715	2.0814	.27526	2.0944	.039107
.9	5.2366	.036658	.003625	.054236	.52005	.071313	.52365	.004888



TABLE VI.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS  
FOR M = 2 — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 0.26; \frac{1}{k} = 10.256$								
.1	54.567	3.2049	0.21503	4.7642	49.029	4.4922	49.069	3.8476
.2	48.522	2.5311	.17790	3.7625	38.729	3.7189	38.791	2.7008
.3	42.470	1.9370	.14230	2.8791	29.644	2.9771	29.713	1.8084
.4	36.413	1.4226	.10901	2.1141	21.773	2.2828	21.839	1.1383
.5	30.351	.98762	.078785	1.4672	15.116	1.6517	15.171	.65850
.6	24.285	.63192	.052386	.93840	9.6710	1.0996	9.7125	.33705
.7	18.217	.35538	.030566	.52748	5.4380	.64249	5.4645	.14216
.8	12.146	.15793	.014071	.23426	2.4160	.29622	2.4290	.042113
.9	6.0732	.039478	.003640	.058520	.60370	.076738	.60732	.005263
$\bar{\omega} = 0.24; \frac{1}{k} = 11.111$								
.1	64.057	3.4708	0.21550	5.1663	57.569	4.8641	57.609	4.1666
.2	56.957	2.7413	.17830	4.0803	45.477	4.0267	45.539	2.9249
.3	49.851	2.0980	.14264	3.1226	34.811	3.2234	34.880	1.9586
.4	42.739	1.5409	.10928	2.2931	25.569	2.4716	25.635	1.2330
.5	35.623	1.0698	.078991	1.5916	17.752	1.7882	17.807	.71328
.6	28.503	.68453	.052530	1.0180	11.358	1.1905	11.400	.36511
.7	21.380	.38498	.030655	.57231	6.3870	.69554	6.4134	.15400
.8	14.255	.17108	.014116	.25421	2.8378	.32068	2.8508	.045619
.9	7.1276	.042768	.003653	.063510	.70920	.083061	.71276	.005703
$\bar{\omega} = 0.22; \frac{1}{k} = 12.121$								
.1	76.251	3.7852	0.21594	5.6412	68.543	5.3038	68.584	4.5437
.2	67.796	2.9897	.17868	4.4557	54.148	4.3906	54.210	3.1899
.3	59.335	2.2883	.14295	3.4101	41.450	3.5147	41.519	2.1362
.4	50.868	1.6808	.10953	2.5043	30.447	2.6949	30.513	1.3448
.5	42.397	1.1670	.079183	1.7384	21.139	1.9497	21.195	.77804
.6	33.922	.74672	.052665	1.1120	13.526	1.2980	13.567	.39827
.7	25.444	.41997	.030741	.62521	7.6063	.75834	7.6328	.16800
.8	16.964	.18663	.014157	.27773	3.3798	.34961	3.3927	.049763
.9	8.4825	.046656	.003661	.069390	.84460	.090557	.84824	.006220
$\bar{\omega} = 0.20; \frac{1}{k} = 13.333$								
.1	92.283	4.1625	0.21634	6.2105	82.972	5.8317	83.012	4.9964
.2	82.047	3.2880	.17902	4.9056	65.549	4.8275	65.611	3.5079
.3	71.804	2.5167	.14323	3.7547	50.178	3.8644	50.247	2.3493
.4	61.556	1.8486	.10976	2.7576	36.859	2.9629	36.925	1.4791
.5	51.304	1.2835	.079357	1.9143	25.592	2.1436	25.648	.85576
.6	41.048	.82134	.052790	1.2247	16.376	1.4270	16.417	.43807
.7	30.789	.46195	.030817	.68862	9.2095	.83370	9.2360	.18479
.8	20.527	.20529	.014195	.30592	4.0922	.38434	4.1053	.054749
.9	10.264	.051321	.003674	.076450	1.0226	.099569	1.0264	.006843



TABLE VI.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS  
FOR  $M = 2$  — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 0.18; \frac{1}{k} = 14.815$								
.1	113.95	4.6239	0.21669	6.9058	102.47	6.4771	102.51	5.5498
.2	101.31	3.6526	.17932	5.4551	80.957	5.3617	81.020	3.8968
.3	88.657	2.7960	.14349	4.1755	61.975	4.2919	62.045	2.6099
.4	76.002	2.0538	.10996	3.0669	45.527	3.2906	45.593	1.6432
.5	63.342	1.4260	.079512	2.1292	31.611	2.3806	31.667	.95075
.6	50.678	.91255	.052896	1.3622	20.228	1.5847	20.270	.48672
.7	38.011	.51326	.030882	.76601	11.376	.92581	11.403	.20533
.8	25.342	.22810	.014223	.34034	5.0553	.42673	5.0683	.060831
.9	12.671	.057023	.003681	.085050	1.2639	.11053	1.2671	.007601
$\bar{\omega} = 0.16; \frac{1}{k} = 16.667$								
.1	144.24	5.2006	0.21702	7.7743	129.74	7.2841	129.78	6.2419
.2	128.23	4.1084	.17960	6.1415	102.50	6.0297	102.56	4.3829
.3	112.22	3.1450	.14372	4.7012	78.468	4.8266	78.538	2.9357
.4	96.197	2.3103	.11015	3.4532	57.644	3.7005	57.710	1.8484
.5	80.171	1.6042	.079651	2.3975	40.026	2.6771	40.082	1.0695
.6	64.142	1.0266	.052994	1.5340	25.613	1.7820	25.655	.54754
.7	48.109	.57741	.030940	.86265	14.406	1.0410	14.432	.23095
.8	32.074	.25661	.014250	.38330	6.4015	.47983	6.4147	.068420
.9	16.037	.064151	.003684	.095800	1.6000	.12420	1.6037	.008554
$\bar{\omega} = 0.14; \frac{1}{k} = 19.048$								
.1	188.43	5.9424	0.21730	8.8902	169.50	8.3222	169.54	7.1318
.2	167.51	4.6946	.17984	7.0234	133.92	6.8889	133.98	5.0081
.3	146.58	3.5938	.14392	5.3765	102.52	5.5143	102.59	3.3544
.4	125.65	2.6401	.11031	3.9494	75.318	4.2277	75.384	2.1122
.5	104.72	1.8332	.079777	2.7421	52.299	3.0584	52.355	1.2222
.6	83.780	1.1732	.053082	1.7546	33.468	2.0358	33.510	.62571
.7	62.837	.65988	.031000	.98679	18.824	1.1893	18.851	.26393
.8	41.893	.29327	.014277	.43847	8.3650	.54812	8.3785	.078208
.9	20.947	.073315	.003694	.10958	2.0907	.14193	2.0947	.009770
$\bar{\omega} = 0.10; \frac{1}{k} = 26.667$								
.1	369.41	8.3167	0.21776	12.458	332.39	11.645	332.43	9.9806
.2	328.38	6.5708	.18024	9.8429	262.62	9.6396	262.68	7.0092
.3	287.35	5.0304	.14425	7.5354	201.06	7.7160	201.13	4.6951
.4	246.31	3.6956	.11057	5.5357	147.71	5.9154	147.78	2.9567
.5	205.26	2.5663	.079974	3.8439	102.57	4.2792	102.63	1.7110
.6	164.22	1.6424	.053222	2.4599	65.643	2.8483	65.685	.87599
.7	123.16	.92380	.031090	1.3835	36.922	1.6640	36.949	.36949
.8	82.111	.41057	.014322	.61483	16.409	.76690	16.422	.10949
.9	41.056	.10264	.003711	.15370	4.1021	.19868	4.1056	.013672



TABLE VI.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR M = 2 — Concluded.

$\pi_1$	$L_5$	$L_6$	$\pi_1$	$\pi_2$	$\pi_3$	$\pi_4$	$\pi_5$	$\pi_6$
$\bar{\omega} = 0.06; \frac{1}{k} = 44.444$								
.1	1026.3	13.858	0.21808	20.777	923.59	19.403	923.63	16.631
.2	912.29	10.949	.18052	16.416	729.74	16.061	729.81	11.679
.3	798.27	8.3829	.14449	12.568	558.70	12.856	558.77	7.8234
.4	684.24	6.1587	.11077	9.2335	410.47	9.8562	410.53	4.9273
.5	570.21	4.2769	.080133	6.4119	285.04	7.1303	285.10	2.8510
.6	456.17	2.7371	.053331	4.1035	182.42	4.7458	182.47	1.4599
.7	342.13	1.5396	.031178	2.3081	102.61	2.7735	102.64	.61567
.8	228.09	.68428	.014392	1.0258	45.605	1.2793	45.617	.18247
.9	114.04	.17107	.003702	.25644	11.401	.33020	11.404	.022746
$\bar{\omega} = 0.04; \frac{1}{k} = 66.667$								
.1	2309.3	20.786	0.21819	31.172	2078.3	29.103	2078.3	24.944
.2	2052.7	16.423	.18061	24.629	1642.1	24.090	1642.2	17.515
.3	1796.2	12.574	.14457	18.857	1257.2	19.283	1257.3	11.736
.4	1539.6	9.2379	.11084	13.854	923.67	14.784	923.73	7.3905
.5	1283.0	6.4151	.080186	9.6205	641.43	10.695	641.49	4.2768
.6	1026.4	4.1057	.053379	6.1570	410.51	7.1191	410.56	2.1897
.7	769.80	2.3094	.031190	3.4633	230.91	4.1592	230.94	.92378
.8	513.20	1.0264	.01436	1.5392	102.63	1.9210	102.64	.27371
.9	256.60	.25660	.003732	.38480	25.656	.49704	25.660	.034214
$\bar{\omega} = 0.02; \frac{1}{k} = 133.33$								
.1	9237.5	41.570	0.21824	62.351	8313.7	58.201	8313.7	49.869
.2	8211.1	32.845	.18064	49.265	6568.8	48.175	6568.9	35.035
.3	7184.8	25.147	.14463	37.718	5029.2	38.566	5029.3	23.459
.4	6158.4	18.475	.11085	27.711	3695.0	29.562	3695.0	14.760
.5	5132.0	12.830	.080251	19.244	2565.9	21.393	2566.0	8.5449
.6	4105.6	8.2113	.053374	12.316	1642.2	14.234	1642.2	4.3794
.7	3079.2	4.6188	.031270	6.9278	923.74	8.3269	923.76	1.8424
.8	2052.8	2.0528	.014373	3.0790	410.56	3.8327	410.56	.54742
.9	1026.4	.51322	.003839	.76970	102.64	1.0080	102.64	.066718



TABLE VII.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{2}$ 

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 20.00; \frac{1}{k} = 0.11905$								
.1	0.005088	0.038552	0.000565	0.038710	0.004601	0.054018	0.004564	0.046301
.2	.004530	.030434	.000526	.030509	.003637	.044712	.003615	.032485
.3	.003976	.023302	.000361	.023352	.002786	.035789	.002784	.021771
.4	.003411	.017114	.000314	.017226	.002047	.027436	.002050	.013710
.5	.002839	.011897	.000297	.011984	.001420	.019850	.001421	.007955
.6	.002248	.007591	.000288	.007658	.000911	.013215	.000888	.004065
.7	.001703	.004249	.000203	.004241	.000515	.007720	.000507	.001709
.8	.001131	.001872	.000090	.001868	.000231	.003558	.000221	.000505
.9	.000587	.000442	.000031	.000458	.000058	.000920	.000057	.000059
$\bar{\omega} = 10.00; \frac{1}{k} = 0.23810$								
.1	0.020302	0.077057	0.001485	0.077275	0.018435	0.10830	0.018158	0.92832
.2	.017981	.060731	.001562	.061084	.014609	.089675	.014209	.065047
.3	.015798	.046344	.001645	.046504	.011221	.071784	.010933	.043434
.4	.013628	.033991	.001391	.033661	.008265	.055040	.008113	.027341
.5	.011354	.023577	.000790	.022960	.005762	.039831	.005613	.015854
.6	.009046	.014977	.000216	.014584	.003720	.026522	.003535	.008085
.7	.006838	.008246	-.000026	.008289	.002122	.015488	.001988	.003340
.8	.004694	.003538	-.000015	.003757	.000957	.007127	.000916	.000952
.9	.002434	.000854	.000012	.000949	.000241	.001841	.000241	.000114
$\bar{\omega} = 5.00; \frac{1}{k} = 0.47619$								
.1	0.081550	0.15241	-.017980	0.16168	0.072634	0.21606	0.072182	0.18483
.2	.072365	.11982	-.015628	.12960	.057407	.17913	.056564	.12935
.3	.063408	.090939	-.012842	.10126	.044065	.14359	.043124	.085973
.4	.054704	.065966	-.009713	.076303	.032531	.11019	.031805	.053442
.5	.046152	.045065	-.006547	.054511	.022738	.079739	.022396	.030382
.6	.037555	.028307	-.003754	.035890	.014657	.053050	.014662	.015231
.7	.028706	.015625	-.001685	.020699	.008298	.030951	.008474	.006287
.8	.019471	.006832	-.000489	.009373	.003705	.014240	.003863	.001827
.9	.009854	.001689	-.000045	.002367	.000928	.003680	.000983	.000225
$\bar{\omega} = 4.80; \frac{1}{k} = 0.49603$								
.1	0.088415	0.15853	-.020320	0.16533	0.078556	0.22510	0.078077	0.19237
.2	.078521	.12451	-.017805	.13234	.062053	.18666	.061253	.13447
.3	.068887	.094429	-.014840	.10325	.047604	.14967	.046798	.089277
.4	.059502	.068465	-.011492	.077737	.035125	.11489	.034594	.055454
.5	.050233	.046774	-.008042	.055539	.024546	.083172	.024397	.031521
.6	.040872	.029396	-.004894	.036619	.015825	.055357	.015976	.015809
.7	.031218	.016241	-.002428	.021185	.008967	.032309	.009224	.006532
.8	.021153	.007109	-.000858	.009638	.004010	.014869	.004199	.001901
.9	.010696	.001759	-.000144	.002449	.001007	.003842	.001067	.000235



TABLE VII.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{2}$  — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 2.40; \frac{1}{k} = 0.99206$								
0.1	0.36462	0.30038	0.014032	0.28219	0.31428	0.42973	0.31960	0.36396
.2	.32698	.23517	.009598	.22000	.24676	.35653	.25562	.25295
.3	.28874	.17841	.005770	.16624	.18773	.28616	.19827	.16768
.4	.24974	.12993	.002761	.12063	.13706	.22006	.14759	.10451
.5	.20991	.089498	.000680	.082847	.094617	.15974	.10379	.059906
.6	.16922	.056870	-.000477	.052539	.060224	.10671	.067185	.030413
.7	.12773	.031801	-.000838	.029355	.033713	.062568	.038153	.012740
.8	.085565	.014071	-.000645	.012997	.014923	.028949	.017079	.003755
.9	.042910	.003508	-.000233	.003246	.003719	.007524	.004289	.000468
$\bar{\omega} = 1.90; \frac{1}{k} = 1.2531$								
0.1	0.59165	0.37296	0.036564	0.37362	0.51427	0.53104	0.52208	0.45074
.2	.52973	.29261	.028717	.29180	.40427	.44035	.41683	.31398
.3	.46677	.22253	.021498	.22073	.30788	.35322	.32242	.20870
.4	.40273	.16248	.015161	.16019	.22496	.27146	.23918	.13047
.5	.33761	.11221	.009895	.10988	.15535	.19692	.16757	.075007
.6	.27148	.071475	.005804	.069488	.098878	.13147	.10807	.038187
.7	.20446	.040051	.002900	.038645	.055318	.077047	.061168	.016037
.8	.13673	.017750	.001099	.016997	.024458	.035634	.027311	.004736
.9	.068492	.004430	.000221	.004210	.006085	.009260	.006847	.000591
$\bar{\omega} = 1.40; \frac{1}{k} = 1.7007$								
0.1	1.1081	0.49807	0.059430	0.53988	0.97503	0.70493	0.98525	0.60031
.2	.98967	.39178	.048215	.42333	.76786	.58417	.78394	.41940
.3	.86978	.29873	.037644	.32148	.58582	.46823	.60413	.27960
.4	.74849	.21867	.028008	.23417	.42880	.35954	.44648	.17531
.5	.62592	.15137	.019557	.16117	.29662	.26056	.31167	.10106
.6	.50221	.096614	.012494	.10220	.18908	.17379	.20034	.051578
.7	.37753	.054229	.006962	.056948	.10592	.10174	.11309	.021704
.8	.25212	.024065	.003041	.025071	.046877	.047009	.050389	.006419
.9	.12619	.006011	.000742	.006209	.011669	.012202	.012617	.000801
$\bar{\omega} = 1.20; \frac{1}{k} = 1.9841$								
0.1	1.5174	0.57779	0.067801	0.64579	1.3420	0.81577	1.3531	0.69568
.2	1.3538	.45496	.055368	.50726	1.0576	.67585	1.0750	.48660
.3	1.1886	.34724	.043586	.38592	.80753	.54154	.82716	.32478
.4	1.0219	.25440	.032755	.28163	.59156	.41569	.61045	.20385
.5	.85378	.17624	.023147	.19420	.40955	.30113	.42558	.11763
.6	.68452	.11257	.014997	.12337	.26127	.20076	.27326	.060081
.7	.51428	.063221	.008495	.068867	.14647	.11748	.15411	.025299
.8	.34328	.028066	.003782	.030369	.064878	.054253	.068622	.007486
.9	.17177	.007012	.000942	.007531	.016162	.014076	.017175	.000935

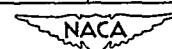


TABLE VII.—VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{2}$  — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 1.04; \frac{1}{k} = 2.2894$								
.1	2.0291	0.66396	0.073923	0.75923	1.8015	0.93568	1.8132	0.79881
.2	1.8089	.52321	.060606	.59715	1.4206	.77504	1.4388	.55925
.3	1.5869	.39961	.047942	.45404	1.0853	.62088	1.1059	.37358
.4	1.3634	.29297	.036240	.33249	.79556	.47646	.81531	.23466
.5	1.1384	.20308	.025788	.22961	.55114	.34505	.56788	.13550
.6	.91224	.12977	.016843	.14609	.35183	.22996	.36435	.069250
.7	.68507	.072910	.009630	.081678	.19738	.13451	.20535	.029173
.8	.45715	.032376	.004333	.036072	.087486	.062095	.091395	.008635
.9	.22870	.008090	.001093	.008960	.021811	.016104	.022868	.001079
$\bar{\omega} = 0.96; \frac{1}{k} = 2.4802$								
.1	2.3862	0.71794	0.076753	0.82972	2.1224	1.0109	2.1344	0.86345
.2	2.1264	.56595	.063027	.65300	1.6741	.83724	1.6928	.60476
.3	1.8648	.43240	.049957	.49783	1.2794	.67063	1.3004	.40414
.4	1.6016	.31710	.037854	.36409	.93808	.51457	.95824	.25394
.5	1.3370	.21986	.027012	.25162	.65008	.37259	.66715	.14668
.6	1.0711	.14053	.017700	.16021	.41513	.24827	.42789	.074984
.7	.80421	.078967	.010158	.089640	.23297	.14520	.24109	.031595
.8	.53657	.035071	.004589	.039618	.10329	.067017	.10728	.009353
.9	.26842	.008764	.001162	.009848	.025758	.017378	.026839	.001169
$\bar{\omega} = 0.86; \frac{1}{k} = 2.7685$								
.1	2.9804	0.79967	0.080047	0.93575	2.6567	1.1248	2.6690	0.96136
.2	2.6547	.63065	.065847	.73698	2.0962	.93149	2.1153	.67367
.3	2.3271	.48203	.052304	.56229	1.6024	.74603	1.6240	.45040
.4	1.9979	.35362	.039734	.41158	1.1754	.57233	1.1960	.28313
.5	1.6672	.24526	.028439	.28468	.81484	.41435	.83229	.16360
.6	1.3353	.15680	.018700	.18143	.52055	.27604	.53358	.083658
.7	1.0024	.088127	.010774	.10161	.29225	.16141	.30054	.035258
.8	.66870	.039144	.004890	.044951	.12963	.074477	.13370	.010439
.9	.33448	.009783	.001245	.011184	.032343	.019307	.033446	.001304
$\bar{\omega} = 0.78; \frac{1}{k} = 3.0525$								
.1	3.6294	0.88029	0.082470	1.0396	3.2404	1.2372	3.2529	1.0579
.2	3.2317	.69445	.067921	.81920	2.5573	1.0245	2.5768	.74164
.3	2.8320	.53094	.054032	.62539	1.9555	.82045	1.9774	.49601
.4	2.4307	.38960	.041120	.45804	1.4347	.62936	1.4557	.31189
.5	2.0279	.27027	.029492	.31703	.99490	.45557	1.0126	.18027
.6	1.6239	.17282	.019438	.20219	.63576	.30346	.64900	.092201
.7	1.2188	.097147	.011230	.11331	.35704	.17741	.36547	.038866
.8	.81298	.043156	.005113	.050166	.15842	.081846	.16256	.011509
.9	.40662	.010786	.001306	.012491	.039536	.021213	.040660	.001438



TABLE VII.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{2}$  — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3'$	$N_4'$	$N_5$	$N_6$
$\bar{\omega} = 0.72; \frac{1}{k} = 3.3069$								
.1	4.2647	0.95260	0.084157	1.1322	3.8118	1.3381	3.8245	1.1446
.2	3.7964	.75165	.069366	.89252	3.0088	1.1080	3.0285	.80259
.3	3.3262	.57479	.055235	.68164	2.3011	.88725	2.3233	.53690
.4	2.8543	.42185	.042085	.49946	1.6886	.68054	1.7098	.33768
.5	2.3809	.29269	.030225	.34586	1.1712	.49257	1.1891	.19521
.6	1.9063	.18718	.019953	.22068	.74858	.32807	.76196	.099857
.7	1.4306	.10523	.011548	.12374	.42050	.19178	.42901	.042098
.8	.95418	.046749	.005268	.054811	.18662	.088462	.19080	.012467
.9	.47722	.011684	.001349	.013657	.046588	.022926	.047720	.001558
$\bar{\omega} = 0.68; \frac{1}{k} = 3.5014$								
.1	4.7847	1.0079	0.085217	1.2028	4.2797	1.4153	4.2925	1.2109
.2	4.2587	.79543	.070274	.94841	3.3785	1.1719	3.3983	.84924
.3	3.7308	.60834	.055992	.72451	2.5841	.93839	2.6064	.56819
.4	3.2011	.44652	.042692	.53102	1.8966	.71973	1.9179	.35741
.5	2.6699	.30984	.030687	.36782	1.3156	.52091	1.3336	.20663
.6	2.1375	.19816	.020277	.23477	.84098	.34692	.85444	.10571
.7	1.6040	.11141	.011748	.13168	.47246	.20278	.48103	.044570
.8	1.0698	.049497	.005365	.058347	.20971	.093530	.21392	.013200
.9	.53502	.012372	.001375	.014541	.052365	.024236	.053500	.001650
$\bar{\omega} = 0.62; \frac{1}{k} = 3.8402$								
.1	5.7617	1.1044	0.086706	1.3254	5.1587	1.5501	5.1717	1.3266
.2	5.1272	.87173	.071550	1.0454	4.0730	1.2834	4.0931	.93056
.3	4.4907	.66682	.057055	.79892	3.1158	1.0276	3.1384	.62273
.4	3.8525	.48952	.043544	.58579	2.2872	.78808	2.3087	.39179
.5	3.2128	.33972	.031335	.40592	1.5868	.57033	1.6050	.22655
.6	2.5718	.21730	.020733	.25920	1.0146	.37980	1.0281	.11592
.7	1.9297	.12218	.012029	.14545	.57008	.22198	.57874	.048877
.8	1.2869	.054285	.005503	.064478	.25309	.10237	.25735	.014477
.9	.64359	.013569	.001413	.016076	.063200	.026525	.064357	.001809
$\bar{\omega} = 0.58; \frac{1}{k} = 4.1051$								
.1	6.5882	1.1799	0.087631	1.4210	5.9024	1.6555	5.9155	1.4170
.2	5.8619	.93140	.072342	1.1210	4.6605	1.3706	4.6808	.99417
.3	5.1336	.71254	.057715	.85689	3.5657	1.0974	3.5884	.66538
.4	4.4035	.52314	.044074	.62844	2.6177	.84158	2.6393	.41867
.5	3.6720	.36308	.031738	.43560	1.8163	.60901	1.8346	.24212
.6	2.9391	.23226	.021016	.27822	1.1614	.40554	1.1751	.12389
.7	2.2052	.13060	.012204	.15617	.65269	.23701	.66140	.052243
.8	1.4706	.058027	.005588	.069253	.28981	.10930	.29408	.015475
.9	.73543	.014504	.001436	.017272	.072370	.028321	.073541	.001934



TABLE VII.— VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{2}$  — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 0.52; \frac{1}{k} = 4.5788$								
.1	8.2037	1.3149	0.088909	1.5913	7.3561	1.8442	7.3694	1.5790
.2	7.2979	1.0382	.073437	1.2558	5.8092	1.5268	5.8296	1.1080
.3	6.3901	.79435	.058628	.96022	4.4451	1.2224	4.4679	.74170
.4	5.4806	.58328	.044807	.70446	3.2637	.93735	3.2856	.46677
.5	4.5695	.40486	.032296	.48846	2.2650	.67827	2.2834	.26997
.6	3.6572	.25901	.021407	.31211	1.4485	.45162	1.4623	.13816
.7	2.7438	.14565	.012447	.17526	.81419	.26391	.82296	.058264
.8	1.8296	.064719	.005707	.077752	.36158	.12169	.36589	.017259
.9	.91494	.016178	.001469	.019399	.090320	.031524	.019492	.002157
$\bar{\omega} = 0.48; \frac{1}{k} = 4.9603$								
.1	9.6333	1.4237	0.089690	1.7282	8.6426	1.9963	8.6560	1.7095
.2	8.5687	1.1242	.074107	1.3641	6.8256	1.6527	6.8462	1.1998
.3	7.5021	.86028	.059186	1.0432	5.2233	1.3231	5.2463	.80322
.4	6.4337	.63174	.045255	.76550	3.8355	1.0146	3.8574	.50553
.5	5.3638	.43853	.032637	.53090	2.6620	.73413	2.6805	.29241
.6	4.2926	.28057	.021647	.33930	1.7026	.48878	1.7165	.14965
.7	3.2203	.15778	.012596	.19058	.95711	.28561	.96593	.063115
.8	2.1473	.070111	.005780	.084568	.42509	.13169	.42943	.018696
.9	1.0738	.017526	.001489	.021110	.10620	.034107	.10738	.002337
$\bar{\omega} = 0.46; \frac{1}{k} = 5.1760$								
.1	10.492	1.4853	0.090060	1.8055	9.4153	2.0823	9.4287	1.7833
.2	9.3319	1.1729	.074424	1.4252	7.4362	1.7239	7.4567	1.2516
.3	8.1699	.89755	.059450	1.0900	5.6907	1.3801	5.7138	.83799
.4	7.0061	.65913	.045467	.79993	4.1789	1.0583	4.2009	.52744
.5	5.8408	.45756	.032798	.55484	2.9005	.76572	2.9191	.30509
.6	4.6742	.29275	.021761	.35464	1.8553	.50981	1.8691	.15615
.7	3.5066	.16463	.012665	.19921	1.0430	.29789	1.0518	.065858
.8	2.3381	.073158	.005815	.088413	.46324	.13736	.46759	.019509
.9	1.1692	.018288	.001499	.022070	.11574	.035584	.11692	.002438
$\bar{\omega} = 0.42; \frac{1}{k} = 5.6689$								
.1	12.592	1.6260	0.090752	1.9818	11.305	2.2791	11.318	1.9521
.2	11.198	1.2841	.075016	1.5646	8.9293	1.8868	8.9499	1.3702
.3	9.8031	.98276	.059944	1.1968	6.8339	1.5104	6.8570	.91750
.4	8.4060	.72177	.045864	.87849	5.0187	1.1582	5.0408	.57753
.5	7.0074	.50107	.033100	.60945	3.4837	.83796	3.5023	.33410
.6	5.6075	.32060	.021973	.38963	2.2285	.55788	2.2424	.17100
.7	4.2065	.18030	.012796	.21892	1.2529	.32596	1.2618	.072125
.8	2.8048	.080124	.005878	.097179	.55657	.15028	.56092	.021367
.9	1.4025	.020029	.001517	.024264	.13907	.038922	.14025	.002671



TABLE VII.— VALUES OF FUNCTIONS FOR ALERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{2}$  — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 0.38; \frac{1}{k} = 6.2657$								
.1	15.389	1.7964	0.091384	2.1948	13.823	2.5175	13.836	2.1565
.2	13.685	1.4189	.075558	1.7330	10.918	2.0840	10.939	1.5139
.3	11.979	1.0859	.060396	1.3259	8.3567	1.6683	8.3800	1.0138
.4	10.271	.79760	.046226	.97337	6.1376	1.2792	6.1597	.63818
.5	8.5615	.55374	.033376	.67539	4.2606	.92549	4.2794	.36921
.6	6.8508	.35432	.022167	.43187	2.7257	.61613	2.7397	.18899
.7	5.1390	.19927	.012918	.24270	1.5326	.35997	1.5415	.079713
.8	3.4264	.088557	.005937	.10776	.68085	.16595	.68525	.023616
.9	1.7133	.022137	.001533	.026911	.17011	.042983	.17133	.002952
$\bar{\omega} = 0.36; \frac{1}{k} = 6.6138$								
.1	17.150	1.8959	0.091678	2.3189	15.407	2.6566	15.421	2.2758
.2	15.250	1.4975	.075810	1.8311	12.171	2.1992	12.191	1.5977
.3	13.348	1.1461	.060606	1.4010	9.3154	1.7605	9.3387	1.0699
.4	11.445	.84183	.046395	1.0286	6.8419	1.3498	6.8641	.67356
.5	9.5398	.58447	.033504	.71379	4.7498	.97657	4.7685	.38969
.6	7.6334	.37399	.022258	.45647	3.0388	.65012	3.0528	.19948
.7	5.7260	.21034	.012973	.25655	1.7087	.37983	1.7176	.084139
.8	3.8177	.093475	.005965	.11392	.75912	.17510	.76351	.024926
.9	1.9090	.023367	.001540	.028453	.18969	.045352	.19090	.003116
$\bar{\omega} = 0.34; \frac{1}{k} = 7.0028$								
.1	19.231	2.0070	0.091955	2.4574	17.280	2.8121	17.293	2.4092
.2	17.100	1.5853	.076047	1.9407	13.650	2.3279	13.671	1.6914
.3	14.967	1.2134	.060803	1.4850	10.448	1.8635	10.472	1.1327
.4	12.832	.89128	.046553	1.0903	7.6742	1.4288	7.6965	.71312
.5	10.696	.61882	.033625	.75666	5.3277	1.0337	5.3465	.41258
.6	8.5582	.39598	.022343	.48392	3.4087	.68812	3.4227	.21120
.7	6.4196	.22271	.013026	.27200	1.9168	.40203	1.9257	.089089
.8	4.2801	.098973	.005991	.12079	.85159	.18533	.85599	.026393
.9	2.1402	.024742	.001547	.030174	.21281	.047994	.21402	.003299
$\bar{\omega} = 0.32; \frac{1}{k} = 7.4405$								
.1	21.714	2.1321	0.092218	2.6132	19.515	2.9870	19.528	2.5592
.2	19.307	1.6842	.076273	2.0638	15.416	2.4727	15.437	1.7968
.3	16.898	1.2891	.060992	1.5793	11.800	1.9794	11.823	1.2034
.4	14.487	.94692	.046705	1.1597	8.6674	1.5176	8.6896	.75761
.5	12.075	.65746	.033740	.80484	6.0175	1.0979	6.0363	.43835
.6	9.6618	.42071	.022425	.51477	3.8501	.73091	3.8642	.22439
.7	7.2472	.23662	.013077	.28937	2.1651	.42701	2.1740	.094649
.8	4.8319	.10516	.006016	.12852	.96196	.19685	.96635	.028043
.9	2.4161	.026288	.001555	.032105	.24042	.050978	.24161	.003505

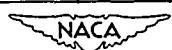


TABLE VII.-- VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{2}$  - Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3^1$	$N_4^1$	$N_5$	$N_6$
$\bar{\omega} = 0.30; \frac{1}{k} = 7.9365$								
.1	24.710	2.2739	0.092465	2.7896	22.211	3.1854	22.225	2.7293
.2	21.970	1.7962	.076485	2.2032	17.546	2.6369	17.567	1.9163
.3	19.228	1.3749	.061168	1.6861	13.431	2.1108	13.455	1.2835
.4	16.485	1.0100	.046847	1.2382	9.8657	1.6184	9.8881	.80806
.5	13.740	.70126	.033848	.85939	6.8497	1.1708	6.8685	.46754
.6	10.993	.44875	.022499	.54971	4.3827	.77938	4.3968	.23934
.7	8.2459	.25239	.013123	.30903	2.4647	.45533	2.4736	.10096
.8	5.4977	.11217	.006038	.13726	1.0951	.20989	1.0995	.029911
.9	2.7490	.028041	.001560	.034292	.27370	.054360	.27490	.003739
$\bar{\omega} = 0.28; \frac{1}{k} = 8.5034$								
.1	28.370	2.4360	0.092696	2.9911	25.506	3.4122	25.519	2.9237
.2	25.224	1.9243	.076683	2.3625	20.149	2.8246	20.170	2.0529
.3	22.076	1.4730	.061334	1.8081	15.424	2.2610	15.448	1.3750
.4	18.925	1.0820	.046980	1.3278	11.330	1.7335	11.352	.86570
.5	15.773	.75131	.033950	.92167	7.8665	1.2541	7.8854	.50091
.6	12.620	.48079	.022572	.58958	5.0335	.83483	5.0476	.25643
.7	9.4661	.27042	.013167	.33147	2.8307	.48770	2.8397	.10817
.8	6.3112	.12018	.006061	.14724	1.2578	.22481	1.2622	.032048
.9	3.1557	.030043	.001567	.036791	.31438	.058215	.31557	.004006
$\bar{\omega} = 0.26; \frac{1}{k} = 9.1575$								
.1	32.908	2.6230	0.092912	3.2233	29.589	3.6738	29.603	3.1481
.2	29.257	2.0721	.076867	2.5461	23.376	3.0412	23.397	2.2105
.3	25.605	1.5862	.061488	1.9487	17.895	2.4344	17.918	1.4806
.4	21.950	1.1652	.047103	1.4312	13.145	1.8664	13.167	.93223
.5	18.294	.80907	.034044	.99347	9.1269	1.3502	9.1458	.53941
.6	14.637	.51775	.022637	.63556	5.8402	.89879	5.8543	.27615
.7	10.979	.29121	.013208	.35734	3.2845	.52507	3.2934	.11648
.8	7.3196	.12942	.006080	.15874	1.4595	.24203	1.4639	.034513
.9	3.6599	.032354	.001572	.039664	.36478	.062687	.36599	.004314
$\bar{\omega} = 0.24; \frac{1}{k} = 9.9206$								
.1	38.627	2.8412	0.093112	3.4942	34.736	3.9792	34.750	3.4099
.2	34.341	2.2445	.077040	2.7601	27.443	3.2939	27.464	2.3944
.3	30.053	1.7182	.061632	2.1126	21.008	2.6367	21.032	1.6038
.4	25.763	1.2622	.047219	1.5516	15.432	2.0215	15.455	1.0098
.5	21.471	.87646	.034132	1.0772	10.715	1.4624	10.734	.58433
.6	17.178	.56089	.022699	.68914	6.8568	.97345	6.8709	.29915
.7	12.885	.31548	.013248	.38750	3.8563	.56869	3.8653	.12619
.8	8.5904	.14021	.006102	.17215	1.7136	.26216	1.7180	.037386
.9	4.2953	.035051	.001579	.043018	.42831	.067901	.42953	.004673



TABLE VII.— VALUES OF FUNCTIONS FOR ATTERRON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{2}$  — Continued

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 0.22; \frac{1}{k} = 10.823$								
.1	45.975	3.0991	0.093295	3.8141	41.349	4.3402	41.363	3.7194
.2	40.872	2.4484	.077197	3.0129	32.668	3.5927	32.689	2.6118
.3	35.768	1.8743	.061763	2.3062	25.009	2.8758	25.032	1.7495
.4	30.662	1.3769	.047323	1.6939	18.372	2.2048	18.394	1.1016
.5	25.554	.95610	.034212	1.1760	12.757	1.5950	12.775	.63742
.6	20.445	.61186	.022755	.75242	8.1631	1.0617	8.1773	.32635
.7	15.334	.34416	.013282	.42310	4.5911	.62022	4.6001	.13765
.8	10.223	.15295	.006117	.18798	2.0402	.28589	2.0446	.040786
.9	5.1118	.038237	.001583	.046980	.50996	.074046	.51118	.005097
$\bar{\omega} = 0.20; \frac{1}{k} = 11.905$								
.1	55.636	3.4087	0.093463	4.1977	50.045	4.7734	50.058	4.0908
.2	49.460	2.6920	.077340	3.3161	39.538	3.9513	39.559	2.8727
.3	43.282	2.0616	.061882	2.5384	30.269	3.1628	30.292	1.9243
.4	37.102	1.5145	.047419	1.8645	22.236	2.4248	22.259	1.2117
.5	30.921	1.0517	.034284	1.2945	15.440	1.7541	15.459	.70114
.6	24.738	.67303	.022805	.82829	9.8806	1.1676	9.8948	.35896
.7	18.555	.37856	.013311	.46579	5.5572	.68207	5.5663	.15142
.8	12.370	.16825	.006129	.20696	2.4696	.31436	2.4740	.044867
.9	6.1853	.042061	.001584	.051721	.61720	.081399	.61852	.005608
$\bar{\omega} = 0.18; \frac{1}{k} = 13.228$								
.1	68.694	3.7870	0.093617	4.6664	61.797	5.3030	61.810	4.5448
.2	61.067	2.9919	.077471	3.6865	48.824	4.3896	48.845	3.1916
.3	53.438	2.2905	.061992	2.8220	37.378	3.5137	37.402	2.1379
.4	45.808	1.6827	.047509	2.0730	27.459	2.6938	27.482	1.3462
.5	38.176	1.1685	.034353	1.4393	19.067	1.9487	19.086	.77901
.6	30.542	.74780	.022855	.92095	12.202	1.2971	12.216	.39882
.7	22.907	.42062	.013343	.51793	6.8630	.75773	6.8720	.16825
.8	15.272	.18694	.006147	.23014	3.0499	.34925	3.0544	.049852
.9	7.6361	.046734	.001592	.057520	.76240	.090441	.76361	.006230
$\bar{\omega} = 0.16; \frac{1}{k} = 14.881$								
.1	86.949	4.2600	0.093757	5.2520	78.226	5.9651	78.240	5.1123
.2	77.294	3.3657	.077592	4.1492	61.805	4.9377	61.826	3.5903
.3	67.637	2.5767	.062093	3.1763	47.317	3.9524	47.341	2.4050
.4	57.978	1.8930	.047588	2.3333	34.761	3.0301	34.784	1.5144
.5	48.317	1.3145	.034414	1.6201	24.138	2.1920	24.157	.87637
.6	38.655	.84126	.022902	1.0367	15.447	1.4591	15.462	.44869
.7	28.992	.47319	.013371	.58305	8.6885	.85234	8.6976	.18927
.8	19.329	.21030	.006160	.25909	3.8613	.39287	3.8657	.056080
.9	9.6645	.052575	.001597	.064759	.96524	.10176	.96645	.007011

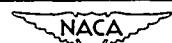


TABLE VII.—VALUES OF FUNCTIONS FOR AILERON FLUTTER CALCULATIONS

FOR  $M = \frac{5}{2}$  — Concluded

$x_1$	$L_5$	$L_6$	$N_1$	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$
$\bar{\omega} = 0.14; \frac{1}{k} = 17.007$								
.1	113.58	4.8682	0.093877	6.0046	102.19	6.8165	102.20	5.8421
.2	100.96	3.8463	.077694	4.7439	80.740	5.6424	80.761	4.1029
.3	88.347	2.9447	.062178	3.6317	61.814	4.5164	61.837	2.7485
.4	75.729	2.1633	.047660	2.6679	45.412	3.4625	45.435	1.7307
.5	63.110	1.5023	.034467	1.8525	31.535	2.5048	31.554	1.0015
.6	50.490	.96142	.022935	1.1855	20.181	1.6672	20.195	.51274
.7	37.868	.54079	.013393	.66673	11.351	.97391	11.360	.21633
.8	25.246	.24035	.006173	.29629	5.0448	.44894	5.0491	.064102
.9	12.623	.060086	.001601	.074060	1.2612	.11629	1.2623	.008008
$\bar{\omega} = 0.12; \frac{1}{k} = 19.841$								
.1	154.60	5.6792	0.093980	7.0077	139.11	7.9516	139.13	6.8152
.2	137.43	4.4871	.077784	5.5366	109.91	6.5820	109.93	4.7862
.3	120.26	3.4353	.062250	4.2386	84.150	5.2685	84.173	3.2064
.4	103.08	2.5238	.047719	3.1138	61.822	4.0391	61.845	2.0190
.5	85.902	1.7526	.034513	2.1622	42.930	2.9219	42.949	1.1683
.6	68.723	1.1216	.022969	1.3837	27.475	1.9449	27.489	.59818
.7	51.543	.63092	.013411	.77825	15.454	1.1360	15.463	.25240
.8	34.362	.28040	.006188	.34586	6.8681	.52383	6.8725	.074768
.9	17.181	.070101	.001603	.086460	1.7170	.13568	1.7181	.009349
$\bar{\omega} = 0.06; \frac{1}{k} = 39.683$								
.1	618.50	11.357	0.094187	14.025	556.62	15.899	556.64	13.629
.2	549.78	8.9732	.077958	11.081	439.80	13.161	439.82	9.5709
.3	481.06	6.8700	.062398	8.4840	336.72	10.534	336.74	6.4123
.4	412.35	5.0473	.047834	6.2330	247.38	8.0759	247.40	4.0384
.5	343.62	3.5051	.034595	4.3284	171.79	5.8417	171.81	2.3368
.6	274.90	2.2432	.023010	2.7701	109.95	3.8877	109.96	1.1963
.7	206.18	1.2618	.013436	1.5581	61.844	2.2708	61.853	.50466
.8	137.45	.56081	.006204	.69250	27.486	1.0471	27.490	.14959
.9	68.726	.14020	.001588	.17313	6.8720	.27045	6.8726	.018685
$\bar{\omega} = 0.04; \frac{1}{k} = 59.524$								
.1	1391.7	17.035	0.094254	21.040	1252.4	23.850	1252.5	20.444
.2	1237.0	13.459	.078016	16.624	989.60	19.741	989.62	14.356
.3	1082.4	10.305	.062446	12.728	757.66	15.802	757.69	9.6193
.4	927.79	7.5709	.047883	9.3510	556.65	12.115	556.67	6.0562
.5	773.16	5.2576	.034637	6.4937	386.56	8.7637	386.58	3.5051
.6	618.53	3.3648	.023068	4.1559	247.40	5.8340	247.41	1.7943
.7	463.90	1.8927	.013452	2.3377	139.16	3.4064	139.17	.75729
.8	309.27	.84121	.006224	1.0389	61.849	1.5715	61.853	.22438
.9	154.63	.21030	.001578	.25975	15.463	.40488	15.463	.027864
$\bar{\omega} = 0.02; \frac{1}{k} = 119.05$								
.1	5566.7	34.069	0.094267	42.084	5010.0	47.697	5010.1	40.877
.2	4948.2	26.919	.078051	33.251	3958.6	39.484	3958.6	28.709
.3	4329.7	20.610	.062462	25.458	3030.8	31.603	3030.8	19.228
.4	3711.2	15.142	.047874	18.704	2226.7	24.226	2226.7	12.117
.5	3092.6	10.515	.034637	12.989	1546.3	17.526	1546.3	7.0101
.6	2474.1	6.7297	.023029	8.3128	989.63	11.662	989.65	3.5901
.7	1855.6	3.7854	.013534	4.6759	556.67	6.8220	556.68	1.5135
.8	1237.1	1.6824	.006244	2.0782	247.41	3.1450	247.41	.44582
.9	618.53	.42061	.001658	.51954	61.850	.81914	61.853	.055728

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